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“A GOOD SIZED POT”: EARLY 19TH CENTURY PLANTING POTS FROM
GORE PLACE, WALTHAM, MASSACHUSETTS

A Thesis Presented

by

RITA A. DEFOREST

Submitted to the Office of Graduate Studies,
University of Massachusetts Boston,
in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

August 2010

Historical Archaeology Program

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“A GOOD SIZED POT”: EARLY 19TH CENTURY PLANTING POTS FROM GORE
PLACE, WALTHAM, MASSACHUSETTS

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RITA A. DEFOREST

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ABSTRACT

“A GOOD SIZED POT”: EARLY 19TH CENTURY PLANTING POTS FROM GORE PLACE, WALTHAM, MASSACHUSETTS

August 2010

Rita A. DeForest, B.S., Bridgewater State College
M.A., University of Massachusetts Boston

Directed by Christa Beranek

This thesis looked at the elite status of cultivating gentlemen at the site of the Gore Place greenhouse through the medium of planting pots. The goal of this thesis was to analyze the planting pot remains and to subsequently answer three questions: what kinds of activities were performed in the greenhouse, who was conducting those activities, and most importantly, how they played in to Christopher Gore's self presentation as having elite status. This project analyzed over 2,000 pot sherds found during the excavation of the 1806 Gore Place greenhouse. The outcome of a minimum vessel count of the planting pots resulted in 150 distinct vessels exhibiting six different rim styles, in a wide range of sizes, shapes and decoration. The results of the research show that while gentlemen farmers applied their agricultural ideals on their fields, they

also extended those principles to the activities within the greenhouse. The intensive horticultural activities conducted within the greenhouse are reflected archaeologically by the presence of specific pot styles associated with propagation.

ACKNOWLEDGEMENTS

There are many people whom I would like to thank for helping me, first of all Dr. Christa Beranek, my thesis advisor, for having endless patience, conducting crash courses in Excel, Photoshop, Illustrator, assisting me with the move from PC to Mac, and for answering all of my miscellaneous questions. She is an excellent teacher and mentor. Heartfelt thanks go to my two readers, Dr. Stephen Mrozowski and Dr. Heather Trigg. Thank you both for taking the time to read this at a busy time of the year, I appreciate it and all of your support. Thank you to Stephen Silliman for always following through with and resolving all of my last minute crises as well as your support. Thanks to Melody Henkel for painstakingly photographing all the little bits of planting pots. I am also much obliged to the Fiske Center for Archeological Research, its kind staff and for allowing me to use their resources.

I'd like to thank the Gore Place Society for providing me the opportunity to work with the collection. I'm appreciative of the Weston Historical Society for showing me their Hews Pottery collection, in particular Pam Fox and Mary Gregory. I'm thankful for the assistance I received from the research librarian at Old Sturbridge Village, and especially for helping me find a hidden gem. I am also very grateful to the Arnold Arboretum research library, the Massachusetts Historical Society, and the Golden Ball Tavern. I would also like to thank Vivian Sinder-Brown, research historian, for her helpful correspondence and research hints and tidbits.

I would never have been able to complete this thesis without the support of my family. A huge thank you to my husband Brian for supporting my decision to take a year off of work to have dedicated time to work on this thesis without cutting in to my time with my daughter, Olivia Mai. Thank you to my mother and mother-in-law for watching Olivia while I was late at school or the library, and sometimes on short notice. Many thanks to my brother Karl for editing parts of my “book.” Thank you to my mother and father for always being supportive in whatever I choose to do, even when it sounds far-fetched. To my sister and brother who inspire me to be a better scholar, its really hard “keeping up” with them. Perekonale, ma armastan teid.

I’d also like to give thanks for great classmates, past and present, and not limited to those I mention specifically. Lindsay Randall for all the helpful tips on formatting and the emergency signatory page questions. For Ciana Meyers for the emergency cut and paste tutorial. For Kate Descoteaux for agreeing to defend with me. Also for my two “school friends” Susan Jacobucci and Adrienne Edwards, whom I met in my first archaeology class at Bridgewater State College and have since become very dear friends. Lastly, I would like to thank all my family and friends for understanding when I couldn’t do anything fun because of deadlines and especially for believing in me when I didn’t. It’s done!

DEDICATION

I dedicate this work to two little ones, to my daughter Olivia Mai who is my love and my happiness and to my sweet nephew Madis Eero who lives so far away and I dearly miss. Ma armastan teid.

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CHAPTER 1

INTRODUCTION

The 19th century in England and America was a period in which agriculture, and in particular experimental agriculture, was viewed as a social ideal that was rooted in many elite organizations as a way for the wealthy to rationalize their wealth. The ideals set forth by elite societies were also extended, as this thesis will demonstrate, to horticulture. Plakins Thornton (1989:170) states that, “cultivation... characterized horticulturists either because they had of their own will risen far enough above materialism to appreciate horticulture or because horticulture had purified them of their money-making fervor.” The greenhouse at Gore Place was not just a symbol of elite status but a working example of the philosophies set forth by the elite societies to which the Gores belonged. The greenhouse served as a way for the Gores to proclaim their status but at the same time rationalize the great expense of building and maintaining such a luxury by conducting experimental horticulture and thus making beneficial improvements for the good of society. Martin Hall (Hicks 2005:378) states that we can “[see] artifacts as integral parts of the statements through which people create and re-create themselves,” therefore the greenhouse was one such way in which the Gores could present themselves as a part of elite society. Leone and Potter (1999:vii) state that “identity can be assembled and added to” and that “identity is created and made, and

assumed by each member” therefore the greenhouse as a part of the Gore Place estate, when considering the ideas of Leone and Potter (1999:viii), was “used to create and sustain identities of [class].”

The goal of this thesis is to analyze the remains of planting pots that were recovered from the 2008 excavation of the 1806 greenhouse, conducted by the Fiske Center for Archaeological Research at the University of Massachusetts Boston, and subsequently to answer three questions: what kinds of activities were performed in the greenhouse, who was conducting those activities, and most importantly, how they played in to Christopher and Rebecca Gore’s self presentation as having elite status. This thesis will demonstrate that there is much to be learned from an analysis of planting pot remains and that the planting pots from the Gore Place greenhouse exhibit variety in size, style, and function and when placed within a historical context, provide insight not only into the kinds of activities performed within the structure, but into the social status of the Gores and subsequently the general control over nature as a show of power, which the greenhouse allows (Leone 2005:67). Like Leone’s (2005:67) interpretation of the William Paca garden as a place “built to naturalize the conflict between slaveholding, diminishing power, and Paca’s strong desire to be better able to control the political influences on his own wealth,” the Gore Place greenhouse’s had a dual function one physical and another psychological, social, and political. The physical function of the greenhouse was as a place to conduct serious horticultural experiments but it also functioned as a way for the Gores to create their own identity as part of a social and political ideology and diminish any negative associations with the luxury product, the

greenhouse, and with the Gore's wealth generally. The landscape according to Leone (2005:79) "was an object for use in horticulture, animal husbandry, social standing, and the owner's personal intellectual and psychic life." As part of the landscape the greenhouse itself was such an object for use in horticulture, social standing and the creation of the Gores own assumed identity.

In 1806, Christopher Gore, a lawyer, statesman, Federalist, and gentleman farmer, together with his wife Rebecca built Gore Place in Waltham, Massachusetts. Along with extensive fields, the estate consisted of a mansion and various outbuildings of which only the mansion and carriage house stand to this day.

The collection of early 19th-century planting pot fragments from the Gore Place greenhouse provided a unique opportunity to study an artifact type that is "commonly found but seldom studied" (Lathrop 2000:iv). A substantial study of early 19th century planting pots is possible because of the size of the collection from the Gore Place greenhouse, in contrast to the few vessels and fragments found from most other contemporary sites (Goodwin and Breen 2005; Pittman and Hunter 2002; Watkins 1950; Beaudet 1990). This collection allows an opportunity to work up from a class of material culture to see how archaeological remains compare to the literature of the period and also see how the literature is reflected within the archaeological record.

The term "planting pot," is used in this thesis when referring to the earthenware pots found within the context of the excavated greenhouse on the Gore Place property. The term is used rather than flower pot, since we cannot absolutely know that they were used for flowers; rather the more generic term planting pot is more suitable for the

purpose of this thesis since by the end it will be made evident that a variety of plants were both propagated and cared for during the period of the 1806 greenhouse's operation based on the variety of sizes and forms present within the Gore Place planting pot collection.

While there is much known about Christopher Gore's political life and his agricultural undertakings, there is very little documentation on the greenhouse. The absence of primary documentary literature regarding the source of these planting pots, what they were used for specifically, and who was doing the majority of the planting within the greenhouse requires the use of contemporary gardening manuals to provide the cultural and historical context. The sources consulted were written by authorities in all things gardening, highly respected English and American authors: the Conductors, J. Cushing, A.J. Downing, C.M. Hovey, Hibbert and Bruist, U.P. Hedrick, Peter Henderson, Mrs. Jane Loudon, and J. Loudon.

Although the particular greenhouse site that was excavated was under multiple proprietors while in usage, from the construction of the greenhouse in 1806 to its destruction in the mid 19th century, the majority of that period was under the original owners, the Gores (Smith et al. 2010:11). After Mrs. Gore's death in 1834, the Lymans occupied the residence from 1834 to 1838 when the Greens purchased the property, occupying the property until 1856 (Smith and Dubell 2006:12,13). The greenhouse was most likely constructed simultaneously with the construction of the 1806 residence (Beranek and Smith 2010:3). Ongoing research conducted by the University of Massachusetts Boston's Fiske Center for Archaeological Research has tentatively set the

date of demolition of the greenhouse in the mid 19th century (Beranek and Smith 2010:4; Smith et al. 2010:11). The destruction layers indicate that the greenhouse ceased to be used as a greenhouse after the 1830s (Beranek and Smith 2010:3). The presumed date of destruction rules out any planting pots that would have been manufactured by the pottery molding machine which was invented in 1861; therefore it is certain that all the planting pots in the collection were handmade (Lathrop 2000:iv). Investigation into the most likely source of the planting pots, the H.A. Hews Company of Weston and North Cambridge, will also be discussed.

Chapter Outline

The subsequent chapter summarizes the history of Gore Place, focusing on the Gores as the original residents of Gore Place, and also the primary occupants during the period that the greenhouse was utilized. A brief summary of the advent of horticultural societies in America and the Massachusetts Society for the Promotion of Agriculture, of which Mr. Gore was a member, will be included to show the general environment within the sphere of floriculture and scientific agriculture. Included in this chapter is a general summary of 19th century greenhouses beginning with a discussion of the term greenhouse within the Gore Place context. The chapter concludes with a brief summary of greenhouse history up to the 19th century and an overview of the archaeology conducted on the Gore Place greenhouse site by the Fiske Center of Archaeological Research at UMass Boston and briefings of three other similar sites with planting pot remains.

Chapter three is a brief history of pottery production, focusing mostly on the early 19th century New England earthenware and just touching upon later modes of production such as by Linton's pottery molding machine. The work of Watkins, *Early New England Potters and Their Wares*, combines a history of early New England pottery and archaeological investigations of potteries such as the Bayley pottery in Newburyport though it is her research on pottery production that was most useful for this chapter (Watkins 1950:8). Also included in this chapter is a discussion of the problems with dating early redware, particularly planting pots, and the attempts made by myself to determine whether or not these pots were made at the Hews Pottery in nearby Weston.

Chapter four reviews the methods used for determining vessel count, and general lab procedure is documented and the results from the investigation into the redware pots retrieved from Gore Place are presented. The chapter concludes with a discussion of each of the more significant planting pots in the collection in detail.

Chapter five presents the analysis of the planting pot results. This chapter explains what the archaeological remains mean within a cultural and historical context. The discovery of a bell-glass in conjunction with the pots with the double rims will be explored, as well as other types of planting pots found within the collection along with the associated significance, such as thumb pots, plain pots with unusual markings and a single decorative ruffled rim pot. Additionally, correlations between the rim diameters of the pots and what they may have been used for will be discussed using historical documents such as gardening manuals and magazines to make the interpretations. This chapter concludes with suggestion for what could have been grown in the greenhouse

based on the popular plants of the period as well as what is known to have been grown by the Gores and the Lymans at their nearby estate, the Vale.

The final chapter presents the conclusions and discussions stemming from the information presented in the thesis. The chapter begins with the conclusions made about the Gore Place planting pot collection and then proceeds to a comparison to other planting pots found at other sites such as George Washington's Mount Vernon, the John Page house in Williamsburg and the Chateau Saint-Louis in Quebec City. Consideration of who may have been conducting the greenhouse activities or assuming a supervisory role in the greenhouse will be discussed, as well as the relationship of fresh cut and potted flowers displayed within the home and social status. The presence of such seemingly unvarying artifacts, such as planting pot fragments, can bring much information to light regarding a site's social, historic and scientific context. By the examination of the vessel type present at Gore Place, it is possible to make distinctions between different pot functions and also theorize on the practices performed within the greenhouse context with the aid of historical texts.

CHAPTER 2

BACKGROUND INFORMATION

Cultivating Gentlemen

During the later part of the 18th century, Britain experienced the beginning of an “Agricultural Revolution” which Plakins Thornton (1989:24,25) describes as being led by gentlemen, “practicing experimental farming... to increase the body of scientific knowledge and, by the success of their operations, to set an example for the farmers of Britain.” By the early 19th century the wealthy in America were very interested in owning their own country estates and making agricultural improvements such those practiced in Britain (Thornton 1989, Holleran 1998; Beranek and Smith 2010). American gentleman farmers followed in the footsteps of their British equals, using the idea of making agricultural improvements for the good of society. Along with Christopher Gore, Theodore Lyman, “conformed to the British mold by designing the Vale not only as a country house, garden, and park but as a working farm suitable for experimental agriculture” (Plakins Thornton 1989:24). Gentlemen farmers rationalized their wealth and opted to use that wealth for the good of society by making agricultural improvements and forming societies for the promotion of their ideals and considered themselves “public servants and their agricultural societies as “publick-spirited institutions” (Plakins Thornton 1989:26). This acceptable means of showing wealth generated a social

environment of “[gentlemen] farmers around Boston [who] vied with one another in cultivating their estates and in 1829 organized the Massachusetts Horticultural Society” (Holleran 1998:110; Plakins Thornton 1989:24).

Christopher Gore was not an exception to these ideas; he “was heavily influenced by British agricultural improvers” and practiced these improvements on his Waltham farm (Plakins Thornton 1989:29). While Gore was living in England between 1796 and 1804, he attended many agricultural events from which he took notes (Plakins Thornton 1989:29). Gore continued his interest and applied the knowledge that he gained in Britain on his own working farm (Plakins Thornton 1989:29). Regarding the motives behind Gore’s country estate, Plakins Thornton’s (1989:43) observes that,

Gore became a gentlemen farmer because, through a kind of cultural intuition, he knew it to be appropriate to a man of his station and pretensions. Scientific farming was something that proper gentlemen, British and American, did. Gore both wished to characterize himself as and knew himself to be just such a gentleman.

Gore subscribed to the entire socially prescribed package; “for elite Bostonians, gentleman farming was simply part of an entire complex of activities---building an elegant house in a fashionable landscape, studying the classics, belonging to learned societies---that constituted a style of living rich with cultural associations and therefore with possibilities for self-characterization” (Plakins Thornton 1989:56). Gore certainly

subscribed to this idea; though a public servant in Boston as a lawyer and later politician, he built his own “humble” farm, in Waltham, and embellished it with all the accoutrements deemed necessary for a gentleman in the early 19th century.

Horticultural Endeavors

The 19th century was “the era of horticultural societies, the flower shows and competitive displays” (Goody 1993:232). Interest in flowers and gardening at this time generated a whole genre of literature aimed at the serious amateur gardener. The horticultural literature was written by experts in the field, from nurserymen and seedsmen such as Bernard M’Mahon, *The American Gardener’s Calendar*, to farming authorities as William Cobbet, *The American Gardener* (Leighton 1987:67,68,71). Gardening manuals and periodicals, such as Loudon’s *The Gardener’s Magazine*, were written for the general public to instruct in the growing of flowers, fruits and vegetables (Leighton 1987:71).

In England the general public did take part in local flower shows, next to the wealthier landowners, under a separate tent of course, but all competing for the same prize (Leighton 1987:101). In America, however, Leighton (1987:102) notes that there were fewer organized horticultural events in the earlier part of the 19th century.

Horticultural societies were formed in the offices of local seedsmen where individuals with similar interests could gather together to share or learn of horticultural news of flowers, plants and fruits (Leighton 1987:102). The Massachusetts Horticultural Society was formed on February 24,th 1829 and was modeled, as were other horticultural societies in America, after the Horticultural Society of London, which was founded in 1804

(Leighton 1987:104,105). The Pennsylvania sister society, formed in 1827, began to expect members to bring and show off their “beautiful or unusual flowers, plants, or fruits they had grown,” at their monthly meetings (Leighton 1987:106). In 1829, there were three members of the Pennsylvania Horticultural Society who were women (Leighton 1987:106). Members of the society brought in varieties of plants, pears and apples, American grape wine, cauliflowers and broccoli (Leighton 1987:106). The first public flower show was held in June of 1829 but was later moved to September and was held annually (Leighton 1989:106,107). Leighton (1987:107) states that at the Pennsylvania flower shows, “the most popular plants were the camellia, the rose, and the dahlia.” Also shown were azalea, peony, poinsettia, magnolia, white pomegranate, pelargonium, carnation, stock gillyflower, double primula, roses, pears, and lily (Leighton 1987:107). In 1847 women were finally allowed to become members of the Massachusetts Horticultural Society (Leighton 1987:109).

Massachusetts Society for Promoting Agriculture

Established in 1792, the Massachusetts Society for Promoting Agriculture was modeled after the philosophy of the agricultural societies in Britain, emphasizing the sharing of knowledge, scientific research and publication and proliferation of research results to the common farmer (Plakins Thornton 1989:61). Since “farming was considered “the source of wealth”—not only of material wealth but of moral and spiritual welfare,” the practice of experimental farming allowed wealthy landowners to feel good about their landholdings (Hay 1995:21). Membership of the MSPA consisted of the

Boston elite, mostly Harvard graduates like Gore, who was a charter member until 1806, and participants of other high-class organizations such as the American Academy of Arts and Sciences, the Massachusetts Historical Society, and the Boston Athenaeum (Gore Place Society 1981:82; Plakins Thornton 1989:59,60). The goal of the society was to gather information from Britain and Europe and to publicize that information through articles in the newspapers and also to develop its own publication to further promote the sharing of knowledge for the common good (Plakins Thornton 1989:61). Additionally, the society began to offer cash prizes for the best scientific research and hoped that the common farmer would adopt the tried and proven techniques of the scientifically minded gentlemen farmers (Plakins Thornton 1989:61,62).

By encouraging men of means to conduct costly or risky experiments, the MSPA hoped to excite a “spirit of emulation” whereby gentleman farmers would act as a kind of leaven in the agricultural populace, stimulating practical farmers to abandon their backward techniques for more successful ones pioneered by their well-to-do neighbors (Plakins Thornton 1989:63).

In 1801 the MSPA collaborated with Harvard College and “[established] a professorship of natural history at Harvard,” for the purpose of supervising the botanical garden that was to be created in Cambridge (Plakins Thornton 1989:63). Christopher Gore took this MSPA created position as Harvard College professorship in 1810 and served until 1815 (Gore Place Society 1981:82).

Brief Summary of Gore Place

Senator Christopher Gore and his wife Rebecca built an estate, Gore Place, in the “country,” or which Mr. Gore often referred to as his “farm” (Pinkney 1969:49).

Mr. Gore had a known interest in scientific agriculture, was a founder and a trustee of the Massachusetts Society for Promoting Agriculture, and applied that interest on his Waltham property (Pinkney 1969:49,50; Smith and Dubell 2006:24). In 1792, Mr. Gore was elected to the Massachusetts Society for the Promotion of Agriculture as a charter trustee, a position he held until 1806 (Gore Place Society 1981:82). In 1796 Mr. Gore retired from the law and the Gores went to live abroad in England (Gore Place Society 1981:82). While away, Gore was elected to the Massachusetts Historical Society 1798 (Gore Place Society 1981:82). While the Gores were abroad in March of 1799, a fire originating from the greenhouse destroyed their home, which was at the time occupied by Mr. Payne, Mrs. Gore’s brother (Gore Place Society 1981:82). The Gores returned to their Bowdoin Square residence in April of 1800 and then in June went to Waltham to assess the damage (Gore Place Society 1981:82). By November of 1800, Mr. Gore had sold his Bowdoin Square residence to Theodore Lyman and the Gores were off again abroad by March (Gore Place Society 1981:82). While abroad they met Jacques Guillaume Legrand, a French architect, and when Mrs. Gore returned home to New England, she drew up her ideas for the mansion to be sent to Legrand (Gore Place Society 1981:82). In 1804, the Gores returned from Europe and they began purchasing building materials for their Waltham property (Gore Place Society 1981:82). In 1805 they broke

ground (Gore Place Society 1981:82). Mr. Gore, in a letter to his friend Rufus King, described the financial strain that his Waltham “farm” was putting on him (Rufus King Letters March 26,1806). Certainly the additional cost of building a greenhouse, with its associated high price due to the specialized workers and the large amount of costly glass added to the this strain (Lemmon 1962:87). The financial burden that Gore Place had placed on Mr. Gore kept him from retiring (Rufus King Letters March 26,1806). In 1806 the mansion was completed and the Gores spent every summer in Waltham until 1816 when they moved there permanently (Gore Place Society 1981:82). Mr. Gore was elected to the Senate in 1813 and went to Washington D.C. Mr. Gore died in Boston in 1827 at the age of 69 (Gore Place Society 1981:82). Mrs. Rebecca Gore died in 1834, at the age of 75; the couple did not have children (Gore Place Society 1981:82).

All the structures on the Gore Place estate, except for the main house and the carriage house, are gone, including the greenhouse. The location of the greenhouse is known from an 1834 map (Figure 2.1) that was drawn up for Theodore Lyman when he purchased the property after Mrs. Gore’s death (Beranek and Smith 2010:3).

The Greenhouse

Terminology

The word “greenhouse” covers many structures used for growing plants however, the 19th century gardening expert and author of *The Exotic Gardener*, J. Cushing (1814:106), implores that since, “[the] management of green-house plants [are] so materially different from those of the stove, it becomes evidently necessary to treat of

them under a separate head.” The previous quote from Cushing means that in the early 19th century there was a need to make distinctions between unheated and heated greenhouses. Recent research has uncovered a bit of information that aids in the interpretative process, and ironically also makes it more difficult. Before trying to answer the research questions of what kinds of activities were conducted in the greenhouse and who was doing those activities we need to look at the terms

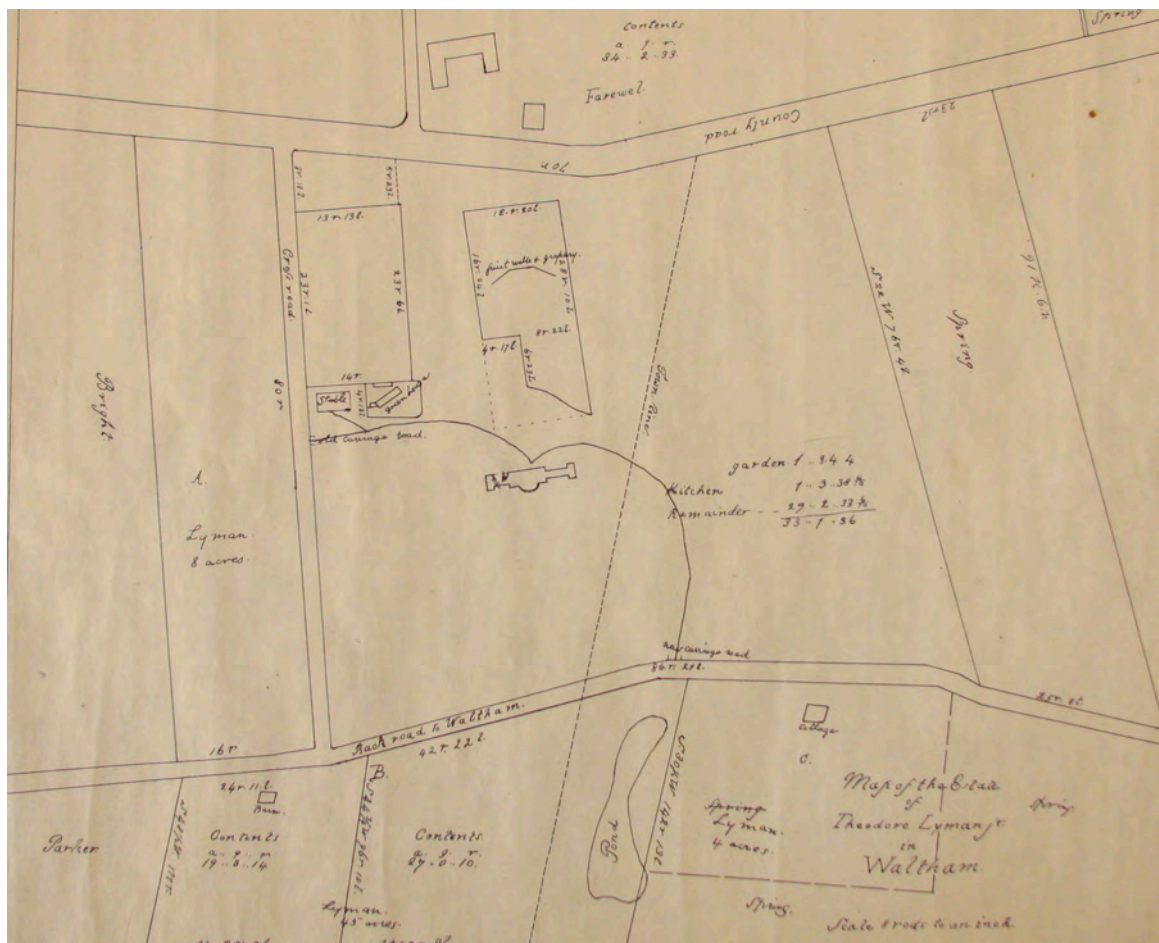


Figure 2.1: 1834 map of Gore Place drawn up for Theodore Lyman when he purchased the property.

greenhouse, hothouse and conservatory. Greenhouses can be defined as those structures which protect plants from the elements and without the aide of artificial heat, instead

using solar heat through large-paneled windows. However, there are plants that prefer hotter climates, such as exotics, that require an additional heat source such as the two following definitions of hot-house that are contemporary with the Gore Place greenhouse.

Hot-houses may be built in various ways. At that time, in England, there were two main types: one, where the plants were placed on shelves and heat was brought in using pipes under the floor or against the back wall; and the other that was heated more naturally using layers of oak bark or fresh manure in which the plant pots were placed. (Renaud 1990:95)

It appears that the Gore Place greenhouse fits the first definition of a hot-house given the presence of the stove door indicating that the structure was artificially heated. The use of a stove or furnace in an adjacent room could have been used as the source of heat being piped into the hot-house. Conservatories were in general a bit fancier, sometimes having built in beds, potted plants, and mature trees in order to recreate the outdoors to be enjoyed year-round and also for entertaining. Woods and Warren's (1988:92) definitions of the conservatory and greenhouse make the distinction between the two as follows,

[Conservatories] had planted beds, and were therefore landscaped and made to look attractive all year round. Greenhouses, whose main purpose was to shelter plants in winter, became a practical place also for raising plants; they were filled with staging, and ideal for seed trays as well as potted plants. The main

difference between the two at the time lay in the internal arrangements, not necessarily in design. As the century progressed, the glass house in the flower garden was more likely to be called a greenhouse and the landscaped glass house near the house was more often known as a conservatory.



Figure 2.2: Possible furnace or stove door. Photo by Melody Henkel.

The word greenhouse here is used to describe the structure built by the Gores on their estate to house their plants, and it is labeled as such on the Lyman's 1834 map (Figure 2.1). Jacob Farwell, Mr. Gore's "Farm Foreman," refers to a structure as a "hot-

house,” in the following excerpt from his Farm Journal, which he kept for 6 years; the entry for January 23, 1822 notes of “Helping Heathcoat about the hothouse.”

Additionally, what appears to be a furnace or stove door (Figure 2.2) was recovered from the greenhouse site as well (Beranek and Smith 2010:4). It is known that Mr. Farwell is referring to Mr. Gore’s gardener, Heathcott, in the previous excerpt, though it is uncertain if he is referring to the same structure in which planting pots examined in this research were found, or if there was at one time an entirely different structure called a hot-house. The presence of the stove makes for compelling evidence that the structure was also used to maintain exotic plants that require more heat. In Quebec City, the greenhouse at the Chateau Saint-Louis is referred to in account books as both a hot-house and a greenhouse (Renaud 1990:98). For the purpose of this thesis, regarding the planting pots in particular, I will still refer to the structure as a greenhouse but will occasionally refer to it as the hot-house when speaking of plants known to be grown by the Gores or Lymans and better suited for the environmental conditions of the hothouse.

In regards to the activities performed in what could also be known as the Hot-house, a focus on plants kept at a higher temperature can be considered when trying to determine what may have been kept there based on the archaeological data, the planting pots, and the cultural and historical contexts. Cushing (1814:131) also mentions, “[there] are also many of our finest plants treated generally as green-house inmates; but for which it is nevertheless necessary to have a little extra warmth and close air in the early part of the spring,” when speaking of *Cammelia japonica*, *Gardenia florida*, and oranges. In keeping the previous species in the greenhouse, he recommends that they are kept in a hot

bed, “dung bed or in deep frames.” (Cushing 1814:131) In J. Cushing’s 1814 “second edition, much improved” *Exotic Gardener* (V,vi), it is stated that,

[I]n the general acceptance of the term Hot-house, it is understood to mean a department, solely appropriated to the reception of those plants indiscriminately, which for the greater part of the Year require the aid of artificial heat to preserve, or bring them to a certain degree of perfection in our Northern regions; but convenience has rendered it necessary to have separate houses for many of the; especially such as are cultivated for their fruit, which is generally wanted in quantity; a circumstance which has urged the researches of man so forcibly forward, that the cultivation of these plants is pretty generally known at the present day.

Likewise, Loudon (1806:343) indicates that there are many different kinds of hot-houses, depending on what was grown in them, as the determinant to which the temperature was kept. “Hot-Houses, in ornamental gardening, are of various kinds, characterized by the modes in which the plants are grown, and the different degrees of temperature employed in their culture” (Loudon 1806:343). According to Loudon’s statement, the structure in which is termed a greenhouse may actually be a hothouse in which a variety of greenhouse and hothouse plants are maintained, keeping the hothouse plants closer to the stove and the greenhouse plants further away. Henderson (1884:63) recommends that hot house plants be kept at 60F degrees at night for such plants as begonias, fuchsia,

poinsettias, roses and tuberose. The large quantity of planting pots within this context suggests that the pots were set upon benches or tiered stages instead of in beds as in a conservatory though plants in pots are not unheard of in conservatories (Beranek and Smith 2010:5; Lemmon 1962:179). Given that the term greenhouse, hothouse and conservatory were sometimes used interchangeably in the early 19th century, it may not matter much what we call the 1806 Gore Place structure today (Chesney 2008:33; Lemmon 1962:133).

A Brief Greenhouse History up to the Early 19th Century

The Romans experimented with sheets of mica or talc to force plants to flower or bear fruit out of season, and also flowers such as roses until glass was first used in the first century, Pompeii (Chesney 2008:3; Huxley 1978:228). The indefinite 1259 record of the first use of artificial heat in a glass house is attributed to Padua, Italy, and later in 1385 there is also record of “flowers in glass pavilions turned to the south” (Huxley 1978:229). In the mid 16th century, a heated greenhouse with possibly glazed windows was built in Padua, what may quite possibly be the “oldest botanical garden” (Huxley 1978:229). The desire for citrus fruits in northern Europe may have contributed to the proliferation of glass houses near the close of the 15th century (Huxley 1978:229).

By the mid 16th century, England, the *orangerie* the name for the structure that housed the desirable citrus fruits during the winter, was initially a rudimentary room or shed that was heated only in the winter (Huxley 1978:230). By the mid 17th century, *orangeries* had windows and by 1696, the first glass roof was built in Britain (Huxley

1978:229,231). During the late 17th century the terms greenhouse and conservatory began being used and the structures became more sophisticated with the addition of ventilation, sashes, and shades or shutters (Huxley 1962:232,234; Pogue 2009:39). Variations in the shape of the greenhouse structure were experimented with during the 18th century in order to attain maximum efficiency in a scientific way (Huxley 1962:234).

The first American greenhouse was supposedly constructed sometime between 1710 and 1738, in Boston by Andrew Faneuil, though Pogue (2009:40), considered an authority on greenhouses, considers this evidence “sketchy.” A number of *orangeries* were being constructed in the early 18th century (Huxley 1962:234). In 1737 there are reports that there is a “pretty greenhouse” in Virginia and Pogue (2009:40) identifies that the Chesapeake Bay was an area in which the “construction of greenhouses flourished,” rather than in the North or far South (Huxley 1962:234). By the late 1800s the greenhouses at Mount Vernon and Mount Clare were built and a bit later in 1804 Lyman’s was built and in 1806 the greenhouse at Gore Place was constructed (Pogue 2009:41).

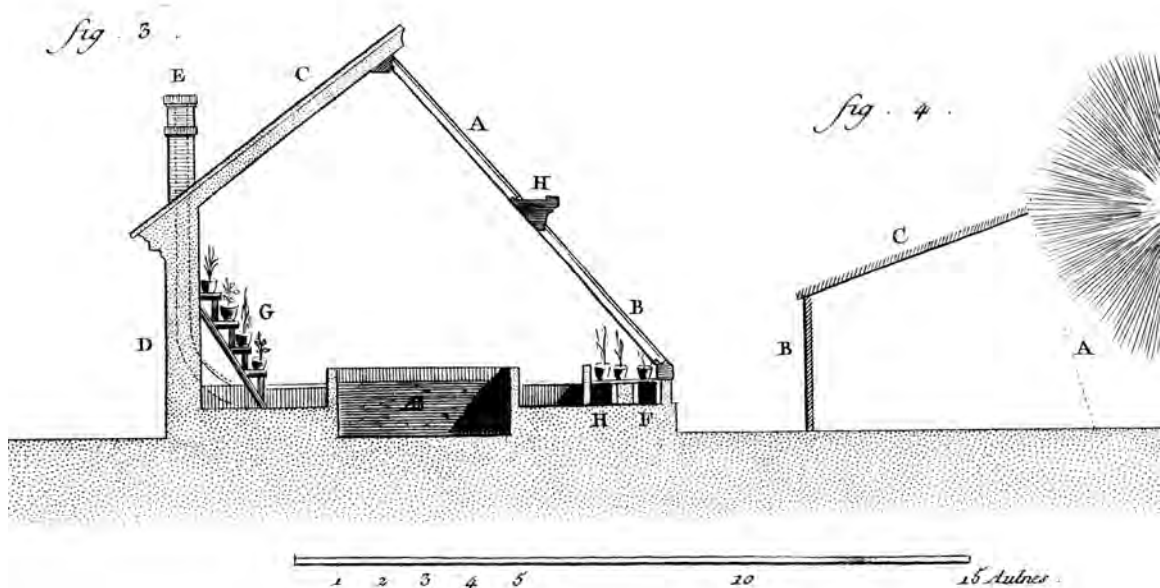


Figure 2.3. What the 1806 Gore Place greenhouse probably looked like. Photo from Diderot's Encyclopedia.

At the Lyman estate in Waltham, the Vale, the greenhouse still standing today was erected at the turn of the 19th century in the form of a “low structure with a barely sloping roof, like a gigantic cold frame” (Huxley 1962:236) (Figure 2.3). The Fiske Center archaeologists believe that this is the same kind of structure that the Gore Place greenhouse was modeled after (Beranek and Smith 2010:5).

Following the late 18th-century trend in England, in addition to having a country estate equipped with a working farm, there was an increased demand for exotic and luxurious products that only a greenhouse or hothouse could generate (Lemmon 1962:83). The early 19th century, according to Lemmon (1962:84), was a period when, “any gentleman worthy of the name would obviously have a conservatory, attached to his

“humble” mansion, and greenhouses, stoves, forcing-houses and frames in his garden,” though it is clear that the greenhouses were still rare and very expensive and only the reasonably wealthy landowner could afford the expense (Pogue 2009:40). These gentlemen showed off the fruits of their labor, as described in Lemmon’s (1962:64) “The Covered Garden,”

The great and the wealthy...found a source of real pleasure, gratification and amusement by the production of fine, excellent fruit to a considerable degree of perfection and of many mature fruits and rare esculents at an early and untimely season.

The Archaeology of the Gore Place Greenhouse

Although the particular greenhouse site that was excavated and from which yielded the planting pot assemblage, was under multiple proprietors while in usage, from the construction of the greenhouse in 1806 to its destruction in the mid 19th century, the majority of that period was under the original owners, the Gores (Smith et al.2010:11). The Gores spent much of their time at their Boston residence and traveling (Smith et al. 2010:11). After Mrs. Gore’s death in 1834, the Lymans occupied the residence from 1834 to 1838 when the Greens purchased the property, occupying it until 1856 (Smith and Dubell 2006:12,13). The greenhouse was most likely constructed simultaneously with the construction of the 1806 residence following a fire in 1799 that destroyed much of the main house which began in the east wing containing the first greenhouse (Beranek

and Smith 2010:3). Ongoing research conducted by the University of Massachusetts Boston's Fiske Center for Archaeological Research has tentatively set the date of demolition of the greenhouse in the mid 19th century (Beranek and Smith 2010:3; Dubell 2007:27). This presumed date of destruction rules out any planting pots that would have been manufactured by the pottery-molding machine, which was invented in 1861, therefore it is certain that all the planting pots in the collection were handmade (Lathrop 2000:iv). The destruction layers indicate that the structure ceased to be used as a greenhouse after the 1830s (Beranek & Smith 2010:3). The researchers currently believe that the 1806 greenhouse may have been used as a storage area while the next greenhouse was already standing by 1841 (Beranek and Smith 2010:4).

The Gore Place greenhouse structure was located on the main driveway just east of the carriage house (Figure 2.4) (Smith et al. 2010:10). The greenhouse location was highly visible since all who entered the estate were treated with a view of this 19th century status symbol (Beranek and Smith 2010:5; Chesney 2008:45). White marble tiles were used as the flooring of the greenhouse -- the same as those used in the main house, which suggests the grandness of this greenhouse (Beranek and Smith 2010:5).

The excavation of the 1806 greenhouse was conducted in 2008 by Fiske Center staff and University of Massachusetts Boston students. I looked at all the planting pot remains from all the contexts resulting from the Gore Place greenhouse excavation. Context information for particular vessels can be found in appendix c. The majority of the pots that I was able to mend originated from context 637, which is the fill of a French drain that was located north of the greenhouse extension (Beranek 2010: Pers. Comm.).

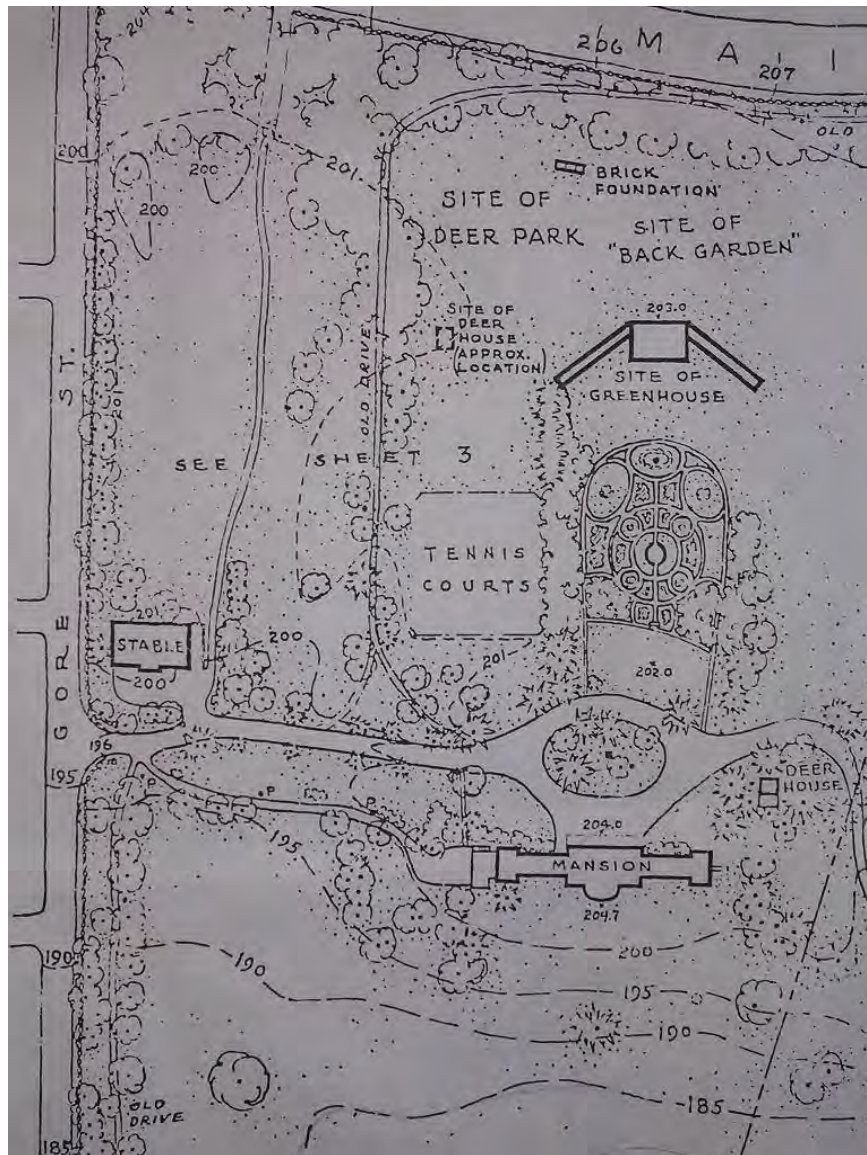


Figure 2.4. Map of the site, greenhouse excavation area is just east (right) of the stables. Historic American Buildings Survey map 1936.

What is available at the time of this thesis in terms of the remaining context information can be found in appendix d.

The main frame of the greenhouse faced south and measured 14 by 3.7 m and had what is “interpreted as a cold-frame along the rear wall” (Beranek and Smith 2010:4). The greenhouse structure also has a small extension which is currently interpreted as a storage and work area, since the location of the extension is not optimal for growing which would rule out a specialized room such as a pinery for the purpose of growing pineapples (Beranek and Smith 2010:4; Chesney 2008:25,26,33). Articles related to cultivation, such as spades and many planting pots, were found within this extension, also suggesting that this was a “general-purpose horticultural storage space” (Beranek and Smith 2010:4).

Besides the planting pots, spades, and white marble tiles, the Gore Place greenhouse artifact yields included a bell glass, early 19th-century ceramics such as creamware, blue transfer printed and pearlware, some slate roofing or flooring, various window and door fasteners and hardware including three locks (Beranek and Smith 2010:3,5).

Comparison to other Sites

Probably the most similar work to date is the report “Flowers of Mount Vernon’s Upper Garden,” based on the 317 flowerpot fragments that were recovered from Washington’s Upper garden (Goodwin and Breen 2005:3). In comparison to Mount Vernon, the Gore Place greenhouse excavation has yielded 2,083 planting pot sherds. The 317 Mount Vernon sherds amount to approximately 89 vessels, which come from “different periods of occupation throughout the long history of the Mount Vernon

gardens” (Goodwin and Breen 2005:6). Dissimilarly, the Gore Place greenhouse was only used for about 35 years so it is interesting to compare the sites in terms of variation since there was a period when they were contemporaneous. Additionally, the role of Martha Washington at Mount Vernon will be discussed in the final chapter as a contemporary of Mrs. Rebecca Gore, in terms of their interest in gardening.

Another Virginian site, the John Page House (1662-c. 1730), yielded “eighteen nearly complete earthenware flowerpots” (Pittman and Hunter 2002:209). The result of their study was that flowerpots were readily accessible to the public during that time. The John Page House typology is used for comparison to the Gore Place collection and also to the Hews pots at the Weston Historical Society because both the John Page and the Gore Place flowerpots were manufactured by hand.

Additional studies pertaining to the tools commonly associated with horticulture and the study of greenhouses have been conducted. Roxanne Renaud’s and Genevieve Duguay’s studies in Pierre Beaudet’s *Under the Boardwalk in Quebec City: Archaeology in the Courtyard and Gardens of the Chateau Saint-Louis* have also examined flowerpot remains recovered during excavation and have made attempts to date the collection (Beaudet 1990).

The following chapter focuses on early redware planting pots, in preparation for the chapter on methods and results, which examine the planting pots from the Gore Place greenhouse.

CHAPTER 3

POTTERY PRODUCTION AND SOURCING

This chapter will only touch upon the production of redware pottery with a focus on the manufacture of handmade earthenware pots, specifically the modes in which redware planting pots were crafted. For a full account of the techniques used in early redware pottery see Lura Woodside Watkin's book, *New England Potters and their Wares*. There will be little discussion on the topic of glazing in this thesis, because the majority of planting pots remained unglazed in order to maintain porosity (Woodside Watkins 1959:6). Since the work in this thesis is based on a collection of artifacts that are associated within a discreet period, it rules out later modes of mass production such as Linton's pottery-molding machine. Also included in this chapter is a discussion of my attempts to determine if the pots from Gore Place were procured from Abraham Hew's pottery, located in Weston, Massachusetts.

Production

Handmade vs. Pottery Molding Machine

The day of the handmade flower pot is almost at an end. Pots can be turned out so much faster and cheaper by machinery that the ancient method is nearly

extinct. Today's workman is not willing to devote years to the apprenticeship necessary to become a craftsman, who, by his magic touch and the revolving wheel, can turn a flower pot into a vase, then into a jug, and back again to the homely, but useful flower pot." (Buxton 1935:149)

All of the pots within the Gore Place collection are handmade. Even a conservative end of usage of the greenhouse of the mid 19th century rules out the later mechanized mode of manufacture of the pots, such as that by Linton's pottery molding machine. In 1861 William Linton developed and patented the pottery molding machine (Lathrop 2000:iv). The first patent given to a Massachusetts potter was to the Hews Pottery of Weston and Cambridge in 1861, expressly for increasing the production of flowerpots (Lathrop 2000:9).



Figure 3.1: Pots attributed to Hews at the Weston Historical Society.

The majority of the pots in the Gore Place collection possess evidence of being wheel turned as indicated by the potting rings left behind by the potter. The potter would pull the clay up to form the vessel and the interior would bear the marks, characterized by the wavy horizontal lines left behind. Residual fingerprints and various smudges also add support to the fact that the Gore Place planting pots were handmade.

The Pot Shop

The material the potters used for their wares was locally available glacial clay (Woodside Watkins 1950:5). Many early potteries were small portable businesses that required a space for working, called a pot shop (Woodside Watkins 1959:10). The pot shop possessed both a clay mill and a glaze mill for processing clay and glaze (Woodside Watkins 1950:5). Integral to the business was a “kick” wheel onto which the clay was “thrown” and some drying shelves to place the wares in preparation to be placed in a kiln for “burning” (Woodside Watkins 1950:5).

Forming the Vessel

The locally available clay was dug up, processed through the clay mill, then while wet, formed into neat packages and stored for later use (Woodside Watkins 1950:5). The potter would then select an amount of clay appropriate for the vessel being turned out, then “throw” it onto the wheel so it would stick (Woodside Watkins 1950:6). The wheel was turned by the potter’s foot “kicking” at a lower wheel that was connected to the

“working” part of the wheel, and in this manner the potter had control over how fast or slow the wheel would turn (Woodside Watkins 1950:5-6). The potter would form the vessel with his hands, pulling up the clay to form the sides. The evidence of this pulling up of the clay is evident in the gradual thinning of the vessel’s walls from bottom to top, as well as the internal, horizontal and parallel “bumps” called potting rings, that result from the handmade method. Creating pottery was a learned craft; apprenticeships were assigned in seven year terms so that, “the young craftsman would be able to turn a series of like forms rapidly and without reference to measurements and that he also would have absolute control of the thickness of each form” (Woodside Watkins 1959:2). Once the vessel form was complete, tooling or incising could be done. When the vessel was ready to be removed from the wheel a piece of wire was usually used to detach the vessel, which was then placed on a shelf to await burning (Woodside Watkins 1950:6).

Decoration

Lura Woodside Watkins (1950:7) describes below the decorative attempts made by early potters.

A few potters, especially in the early period, made attempts at simple decoration by incising or tooling lines on the body of the ware before it was glazed. This was accomplished by holding a pointed instrument against the vessel while it was slowly turned around on the wheel. Wavy bands of apparent complexity were tooled with a small metal comb having four or more points.

As noted by Watkins, one of the tools used to make these decorative incisions was a handmade metal comb (Woodside Watkins 1959:10). The fact that these metal tools were handmade could be useful in an attempt to match decorative incision of un-sourced wares against ones that have associated provenience information. The incisions are created by “[a] comb held against a finished but still damp vessel while it was revolved slowly on the wheel [which] left a band of parallel lines, straight or wavy, according to the potter’s intention” (Woodside Watkins 1959:3). Woodside Watkins (1950:7) also comments on the above-mentioned practice that, “incising on redware was not altogether successful, because the lead glaze flowed into the toolings, partly obscuring them.” This practice of making decorative incisions on redware flowerpots though may be an exception to Woodside Watkin’s previous statement, since many flowerpots remained unglazed for the purpose of retaining porosity.

Another mode of decoration, of which the Gore Place collection has but one example, is slip decoration. According to Woodside Watkins (1950:8), this type of decoration was found at the Hews pottery in Weston, Massachusetts, which as mentioned earlier, is a potential source of the planting pots from Gore Place. The one example of slip decoration is described in detail within the chapter on results under the section on decorative techniques. This type of decoration, however, is unlike the kind described by Woodside Watkins (1950:8) in which the slip is trailed. Rather the decoration on the particular Gore Place sherd is decorated with slip, possibly brushed on, in a geometric pattern of dots of black and white.

The Kiln

Firing, or burning of the earthenware was done within a brick kiln in a subjective way. First of all, the pottery was stacked into the kiln in such a way as to maximize the use of the space: “[potters] knew many ingenious tricks for burning the greatest possible number of vessels at one time.” One such trick was that “[l]arge pots were placed upside down with smaller objects underneath them” (Woodside Watkins:1950:9). The experienced potter knew when the temperature of the kiln was right, hopefully never going over 1800F degrees, which inevitably meant that each firing was different (Woodside Watkins 1950:9). Also the temperature within the kiln itself varied from one side to the other (Woodside Watkins 1950:9). The potter could not and did not consistently get the same results from one session of burning to the next. The inconsistent temperature over the course of 30-36 hours, which is how long it took for the firing, within the kiln resulted in vessels with uneven coloring; one side of the vessel would be darker than the other because “[it] was impossible to regulate the wood fires to a nicety and many a kilnful of ware must have been destroyed by the carelessness or inattention of workmen who watched the kiln overnight” (Woodside Watkins 1950:9,10). In the course of firing vessels with glaze, together with vessels that were unglazed, it is possible that some glaze could have accidentally splattered onto unglazed vessels. The Gore Place collection does have a few examples of planting pot fragments with splotches of clear lead glaze, but not enough to seem intentional.

Sourcing

Dating Redware

The problem attributing a date of production with early redware planting pots, in particular flowerpots, is that potters of the late 18th and early 19th centuries did not mark their wares (Woodside Watkins 1950:10). The absence of records kept by, or about potters makes it extremely difficult to extrapolate the source of flowerpot remains in the archaeological record. Woodside Watkins (1950:10) points out that “[written] records about this craft are rare, perhaps because potters, within the memory of local historians, were still peddling their wares from carts and were therefore considered of little account.” Furthermore, “redware was rarely marked, except when made for presentation,” so to find such markings on most everyday vessels is uncommon, and though “[impressed] marks on redware are not unknown...they appear as a rule on such pieces as milkpans or lard pots, which would otherwise be of little significance, and are invariably of later period” (Woodside Watkins 1959:10,11) .

Source of the Planting Pots

Little documentary evidence concerning our early potters has been found. When such material does come to light, as it so rarely does, it is of the greatest value.
(Woodside Watkins 1950:30)

I have made multiple attempts to locate the source of the planting pots recovered from the Gore Place greenhouse. Other researchers have alluded to the Hews pottery in Weston, Massachusetts as being a likely source for the Gores and the later proprietors of Gore Place for obtaining the earthenwares (Smith and Dubell 2006:49). The basis for this premise is the close proximity of the pottery in Weston to the greenhouse in Waltham. The distance is but a few miles. Abraham Hews founded his pottery in Weston, Massachusetts in 1765 (Fox 2002:366). In addition to the relatively short distance, the fact that the A. H. Hews Company later became known particularly for the production of redware flowerpots heightens the possibility of an earlier planting pot proficiency (Woodside Watkins 1950:43, Lathrop 2000:9).

The first attempt was to see if there was any written record from the potter's side since there have not been any accounts, according to researchers on behalf of the Gore Place Society, of the Gore's purchasing wares for the greenhouse. For this the Abraham Hews account book was examined at the Baker Library of the Harvard Business School. Recorded in the account book were entries from 1780 to 1789 (Lathrop 2000:142). The majority of the entries were what appeared to be of what Hews received from his clients, perhaps in payment for his wares or maybe for purchases he made himself. There was little mention of pots, and when there was, the descriptions were vague, for example the following entries made on June 11th 1789,

Daniel Eaton potatoes	00:9
Esq Ward ware	0”0”7
Joel Stone 1 Bushel potatoes	0”1”6
To 16 quart mugs	0”4”7
To 2 large pots	0”0”9

The next attempt at finding some sort of evidence that may clearly show that these unmarked pots were incontestably Hews was a visit to the Weston Historical Society. The idea for a trip to the Society was based on a citation from Lathrop’s (2000:158) Master’s thesis that stated that they had in possession a collection of flowerpots from the Hews pottery in Weston. My hopes for the trip was to find some similarly decorated pots which would further the proposal that the Gore Place pots are indeed Hews. Many of the pots the Society had brought out for me to view were of a later date than what I was interested in. There were six pots without dates that were of potential interest, the largest of which were the most promising (Figure 3.1) but on further consideration they looked more like the 18th-century pots found at the John Page House in Williamsburg (Pittman and Hunter 2002:211). There were no fingerprints or smudges, but some did possess potting rings, and the walls seemed to be of even thickness from top to bottom. The result of this visit was inconclusive. Additionally, correspondence with The Golden Ball Tavern, also in Weston and close to where the original Hews Pottery was located, turned up five bags of sherds without provenience information. Old Sturbridge Village possessed a wealth of 19th-century horticultural literature but their collection of redware

flowerpots for the most part were unattributed to specific potteries except for those of Hervey Brooks of Goshen, CT. Unfortunately it remains unknown whether or not these pots from the Gore Place greenhouse are Hews.

Of flowerpots, Lura Woodside Watkins (1959:10) says, “their variety is astonishing and would make a study in itself.” The next chapter will review the methods used to collect the data for the thesis on the planting pots found within the context of the Gore Place greenhouse, and present the results.

CHAPTER 4

METHODS & RESULTS

Methods

UMass Boston students and Fiske Center staff washed and catalogued the Gore Place artifact collection during the summer of 2009. The initial chore in the Gore Place Planting Pot project was to separate all the planting pots from the rest of the artifacts from the site. This was so that an idea of the size and scope of the planting pot collection could be attained. From the Gore Place artifact collection there are 2,083 planting pot sherds, all made of coarse redware. Next, all the significant sherds were pulled out, such as rim pieces, bases, decorated and markedly larger sherds. These pieces were the ones that had the potential to indicate size, shape, function, and quite possibly manufacturer. The pieces that were separated out were all labeled with their respective context number to maintain provenience so that later the label could be removed and the item could be placed back into its site context bag. The labeling procedure was unique in that it utilized only printer paper and a label adhesive, Acrysol WS24, rather than the typical handwritten method used in archaeology labs, of polish and ink. The context numbers were printed in columns on regular printer paper, and then cut and glued onto the sherds. This method proved to make labeling quicker and easier to read than the handwritten method, as well as being less conspicuous. In addition, the labels are removable so that

the artifacts can be returned to the Gore Place Society unmarred. Once all the potentially significant pieces were labeled they were placed into new context bags, which contained separate bags for rims, bases and decorated pieces. This was done for ease of locating desired pieces for analysis.

The next stage was to decide what to use as the basis of the Minimum Vessel Count (MVC). The most diagnostic of the sherds were the rim pieces, displaying more variety than the bases. All of the rim sherds were then pulled out of their context bags so that they could be sorted by type. The planting pots from the Gore Place greenhouse are all pre-mechanized, which means that each vessel was created by hand thus making it nearly impossible to date the pottery without provenience. However the variation that comes from a handmade product becomes an advantage for determining a minimum vessel count beyond sorting into a rim type. The variations of each vessel in wall thickness, measured in millimeters using calipers, length and width of a band if any, rim diameter in centimeters using a rim chart and also noting the percentage of rim present, paste color using the Munsell color chart and texture with the additional consideration of the characteristics of each rim, such as whether the top of the rim was flat or rounded and if the interior edge curved in or not, made it possible to make distinctions between individual vessels. Additionally, the presence or absence of decoration was noted as well as such modifications as burning and scratching, whether intentional or not. Once all the unique rims were identified and assigned a vessel number the characteristics were recorded onto vessel record forms and then entered into an Excel spreadsheet for ease of sorting when looking at and comparing characteristics.

Results

The result of the Minimum Vessel Count was that there are at least 150 distinct vessels out of 248 rims sherds. A benefit that results from conducting a minimum vessel count (MVC) is that six rim types have been identified; Flanged, Rolled, Square or Collared, Straight, Double Rim, and Ruffled (Table 4.1) (Figure 4.1).

Rim Type	Collared	Double	Flanged	Rolled	Ruffled	Straight
Count	73	4	22	30	1	19
Percent	48%	3%	15%	20%	<1%	13%

Table 4.1: Breakdown of minimum vessel count by rim type.

Falling within these categories are subcategories, describing the variation between the rims more precisely since many express multiple characteristics. The subcategories were included within the larger, more encompassing categories based on the strongest characteristic (Table 4.2). True type, for the purpose of the thesis, refers to the rims that fit only within that rim type and do not express a secondary rim characteristic. The true type is easily recognizable as belonging to that rim type and is usually a prime example of that type.

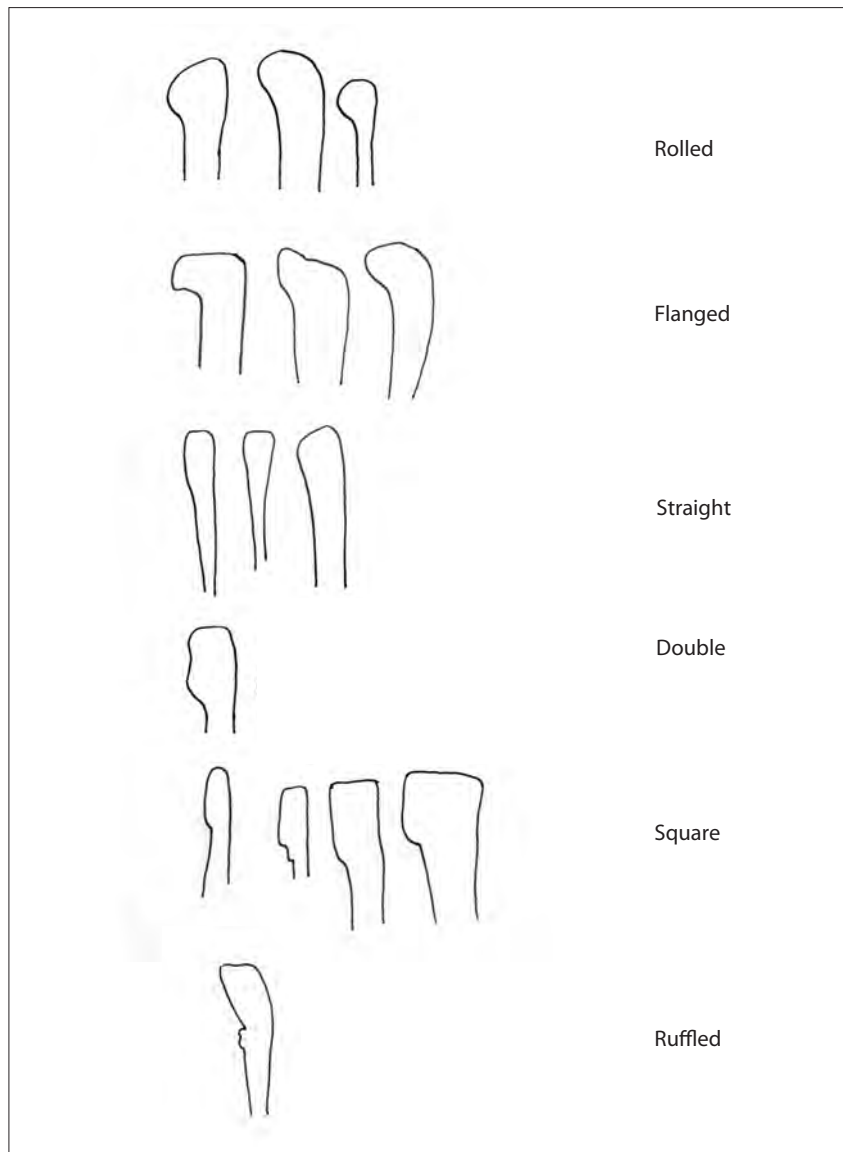


Figure 4.1: Profile drawings of rim types.

Rim Type Subtype	Count	Percent of Total	Percent of Type
Collared	73	48%	
Collared True Type	53		73%
Collared Subtype 1	1		1%
Collared Subtype 2	1		1%
Collared Subtype 5	5		7%
Collared Subtype 6	13		18%
Double Rim	4	3%	
Flanged	22	15%	
Flanged True Type	15		68%
Flanged Subtype 1	1		5%
Flanged Subtype 2	6		27%
Rolled	30	20%	
Rolled True Type	17		57%
Rolled Subtype 1	4		13%
Rolled Subtype 3	1		3%
Rolled Subtype 4	8		27%
Ruffled	1	>1%	
Straight	19	13%	
Straight True Type	10		53%
Straight Subtype 2	1		5%

Straight Subtype 3	6		32%
Straight Subtype 4	2		10%
Total	150	100%	

Table 4.2. Breakdown of rim types into subtypes.

Subtype 1	Also slightly expresses the True Type.
Subtype 2	Also looks slightly rolled.
Subtype 3	Also has a slight square or collared rim.
Subtype 4	Is also slightly flanged.
Subtype 5	Also looks like it had been pinched.
Subtype 6	Also looks slightly straight.

Table 4.3. Description of each subtype for Table 4.2.

Rim Styles

Flanged Rim

This rim style has a lip that slightly projects out to form a ledge or overhang (Figures 4.1,4.2). The rim lip is rolled out but not pressed to the exterior wall, such as the rolled rim type. Within the Gore Place collection the flanged rim represents just 15% of the rim types. 68% of the flanged rims are easily recognizable as belonging within the type while the other 32% is comprised of subtype 1 and 2. Subtype 1 represents just 5% of the rim type and could be described as just slightly flanged. Subtype 2 has a 27% representation within the rim type and is described as flanged rim that looks slightly like a rolled rim.



Figure 4.2: Flanged rim type. Photo by Melody Henkel.

Rolled Rim

The potter creates the rolled rim by rolling the rim over the vessel and then pressing it to the exterior wall (Figures 4.1,4.3). This early rim style was common during the colonial period (Goodwin and Breen 2005:4). Twenty percent of the vessels in the Gore Place collection have rolled rims. Of that 20%, over half, 57%, are easily recognizable as rolled rim or true type. The remaining 43% belong to subtypes 1,3, and 4. Subtype 1 has a slight roll and is 13% of the rim type. Subtype 3 represents 3% of the

type, and looks slightly like a square collared rim. Subtype 4, 27%, is slightly flanged in addition to the rolled rim characteristic.



Figure 4.3: Rolled rim type. Photo by Melody Henkel.

Square or Collared Rim

When referring to a collared rim, for the purpose of this paper, it is meant the rim type formed in the square style that is now typically the most recognizable flowerpot rim style used today (Figure 4.1,4.4). It does not refer to the slip decorated painted band just beneath the rim (Noel Hume 2001:363). Earlier planting pots, “were later succeeded by pots with a collar turned with the aid of a guide or “jigger,” and still later by flowerpots made wholly by machine, as they still are at the Hews pottery in Cambridge” (Woodside

Watkins 1959:11). This rim style is more functional in that it makes stacking the flowerpots possible for ease of storage or transportation (Goodwin and Breen 2005:5). This rim style became popular in the mid 19th century with the invention of Linton's pottery molding machine, though it was clearly produced prior to the patent as evidenced by the presence in this early 19th century context (Lathrop 2000:46). The rim style is associated with flowerpots to this day.



Figure 4.4: Square rim type. Photo by Melody Henkel.

The square collared rims in the Gore Place collection exhibit a variety of stylistic differences. The majority within this type are straightforward archetypical square collared rims, however there are subtle decorative differences in some that appear to have

had some tooling done around the exterior of the band which have a ribbed or stepped effect (Figure 4.4). Almost half, 48%, of the planting pots in the Gore Place collection have a square, or collared, rim. 73% of this rim type is true to type, expressing characteristics typically associated with the square collared rim. The other 27% of the square collared rim type fit within subtypes 1, 2, 5 and 6. One percent of each, subtype 1 and 2 are represented in the collection, one being slightly square and the other slightly rolled. Of subtype 5, 7% of the rim type is represented which also looks pinched at the bottom of the collared rim band. Eighteen percent of the rim type is subtype 6 which looks slightly like a straight rim, so the rim band of the square type is very subtle.

Straight Rim

This style does not terminate into a stylized rim (Figure 4.5). “The perfectly plain garden variety of flower pot was originally thrown on the wheel and had no collar or rim-band” (Watkins 1959:11). Goodwin and Breen (2005:4) state that this style became popular in 19th-century Virginia.

Thirteen percent of the Gore Place planting pot collection has straight rims. Fifty three percent of this rim type is characteristic of the straight rim style. The remaining 47% are best described as falling within subtypes 2, 3, and 4 (Table 4.2). The straight rim with subtype 2 is a vessel whose rim is ever so slightly rolled and makes up 5% of the type. Thirty two percent of the straight rimmed vessels fall within subtype 3 which means they have a slightly square or collared look to them. Subtype 4 comprises 10% of the straight rim type and these vessels are slightly flanged.



Figure 4.5: Straight rim type. Photo by Melody Henkel.

Double Rim

The profile of this rim looks like a 3 (Figures 4.1, 4.6), as it has two rims, one at the top and one just beneath it or a couple of centimeters beneath (Noel Hume 1969:223; Currie 1993:233; Goodwin and Breen 2005:4). The double rim style, described by C.K. Currie, has a groove around the vessel for the purpose of “[receiving] the edge of a bell glass” (Currie 1993:233). The presence of the double rim type absolutely makes sense in this assemblage because the archaeologists who excavated the Gore Place greenhouse found bell glass fragments (Smith and Dubell 2006:49). From Currie’s description of the

double rim type of pot and the bell glass, the presence of the two within the greenhouse context makes for a convincing theory. It is still unclear if what I have designated as a double rim is indeed what Currie is describing. Goodwin and Breen (2005:4) state, “[double]-rim vessels tend to be more ornate, often decorated with roulette designs along the rim and other designs around the body,” however the opposite is true in the Gore Place collection. The four examples of double-rims that are present in the assemblage are all undecorated, though the comparison with Goodwin and Breen’s (2005:4) research is disproportionate as they had 14 examples of this style. This rim type is discussed at length in the next chapter. The double rim type makes up just 3% of the Gore Place collection and each vessel is recognizable as a double rim, expressing no additional characteristics.



Figure 4.6: Double rim type. Photo by Melody Henkel.

Ruffled Rim

The ruffled rim is immediately recognizable as being very different from all the other vessels in the assemblage (Figures 4.1,4.7). There is only one example of this type of decorative vessel and represents less than 1% of Gore Place collection. It is highly decorative and unique from the rest of the collection. The vessel with this rim type is described at length in the discussion of decorative types below. It is possible that this vessel had been intended for use within the interior of the house rather than in the greenhouse. This decorative pot could have either been purchased by the Gores, Lymans or Greenes or had been gifted to one of them for the intended use for the interior of the house but had somehow made its way to the greenhouse instead.



Figure 4.7: Ruffled rim type, vessel #37. Photo by Melody Henkel.

Rim Diameters

“Flower pots are graded in size by half inches, from the tiny “thumb pots,” an inch in diameter, to huge affairs twenty-four inches across” (Buxton 1935:149). Rim diameters, which is the common means by which potters measured their wares (though in inches), were recorded in order to get an estimation of vessel size and also to see the range of vessel sizes in the collection. The contemporary gardening literature referred to pots often by their dimensions to which I later used for analysis.

The Gore Place assemblage has only one 2 cm [1 in.] diameter pot, and one of a 4 cm [1.5 in.] diameter, whereas there are many vessels within the middle 11-16 cm [4-6 in.] rim diameter range, with just a few examples of the larger diameters of 22-30 cm [8.5-12 in.] range. Most of the pots fall within the medium size range, with fewer pots of the smaller sizes and even fewer of the largest pots (Figure 4.8).

Almost half, 48%, of the rims are square (Table 4.1), which is considered a later rim style indicating that this rim style was a desirable pot form in the greenhouse context during the early to mid 19th century (Woodside Watkins 1959:11). The majority of the square rims are within the 6-18 cm [2-7.5 in.] in diameter range, with a few isolated larger pot sizes (Figure 4.9). There are no square rimmed pots of smaller than 6 cm [2 in.]. The two most popular sizes are the 11cm and 16 cm [4 and 6 in.] rim diameter pots.

There are only four examples of a double-rimmed pot within this collection (Figure 4.10). One of the rims has too little of it left to take an accurate measurement. There is one double-rimmed pot with a 13 cm [5 in.] diameter, and two 18 cm [7 in.] pots.

The flanged rim style is not present in any of the smaller pots (Figure 4.11). This rim style is found mainly in the middle range of pot diameter sizes from one or two pots each in the 11cm to 20cm [4 in. to 8 in.], diameter range, with one or two pots of each size except for the 16 cm [6 in.] pot, which is absent. Then there are 7 pots that are 21 cm [8 in.] in diameter, with only one each of a 26 cm [10 in.], 27 cm [11 in.], and a 30 cm [12 in.] pot.

The rolled rim is also mainly present in the medium sized pots (Figure 4.12). There is only one example of a 2 cm [1 in.] pot. Most of the pots range from 11 cm [4 in.] to 27 cm [11 in.], with one pot at 30 cm [12 in.].

The straight rim style is represented in both the smaller and medium diameter ranges (Figure 4.13). These straight-rimmed pots are only one or two each in the 4 cm [1.5 in.] to 17 cm [7 in.] range with one that is 21 cm [8 in.] in diameter.

It is definitely interesting to note that the largest planting pot in the collection is a 30 cm [12 in.] pot, of which we have two. As the sizes of the pots in the Gore Place collection are discussed in the subsequent chapter, the 12 in. diameter pot is considered a larger sized pot commonly used in the earlier part of the 19th century (The Conductors 1836:244).

Vessel #81 is the only pot in the collection that was most likely not used for planting (Figure 4.14). It is clearly a red earthenware pot, but with possibly some white slip painted on the surface such as some of the vessels found at the late 18th-century Bayley pottery in Newburyport, Massachusetts (Woodside Watkins 1977:71). The rim diameter is greater than 35 cm [14 in.] with a base diameter of 19cm [7.5 in.]. This

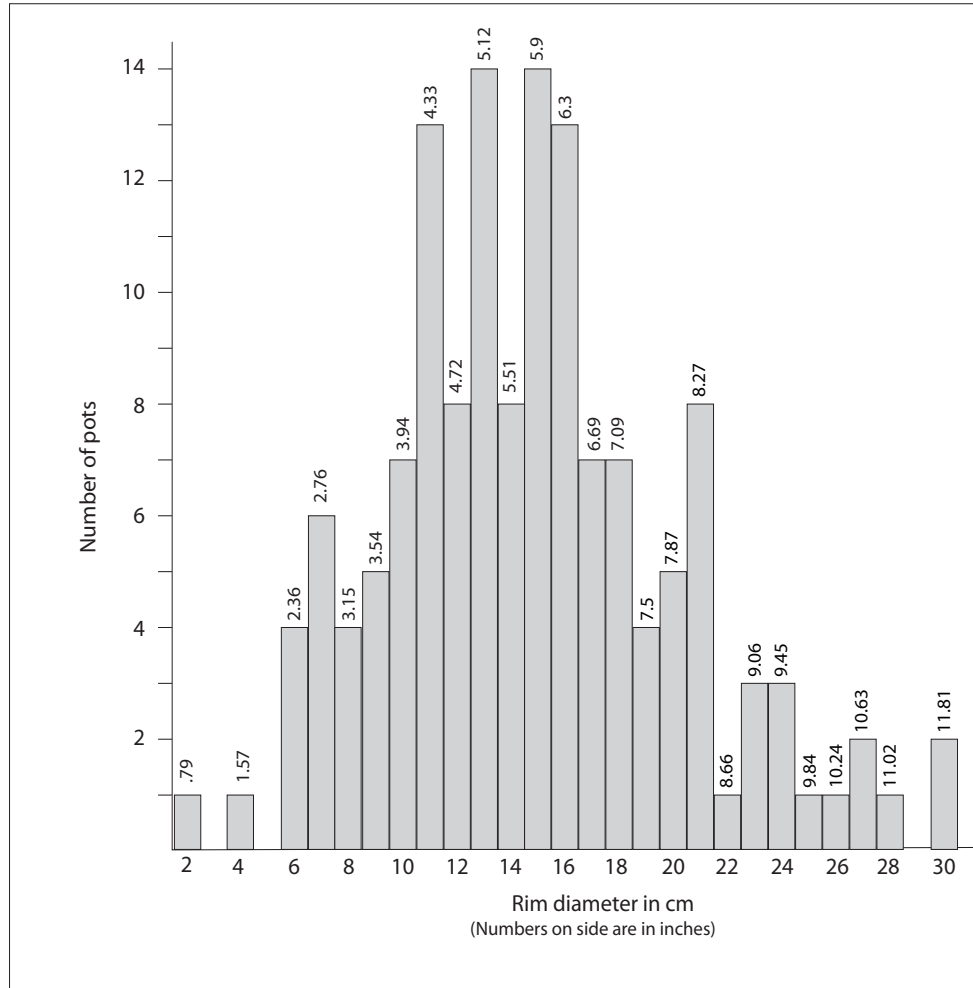


Figure 4.8: Chart of rim diameters of Gore Place planting pots.

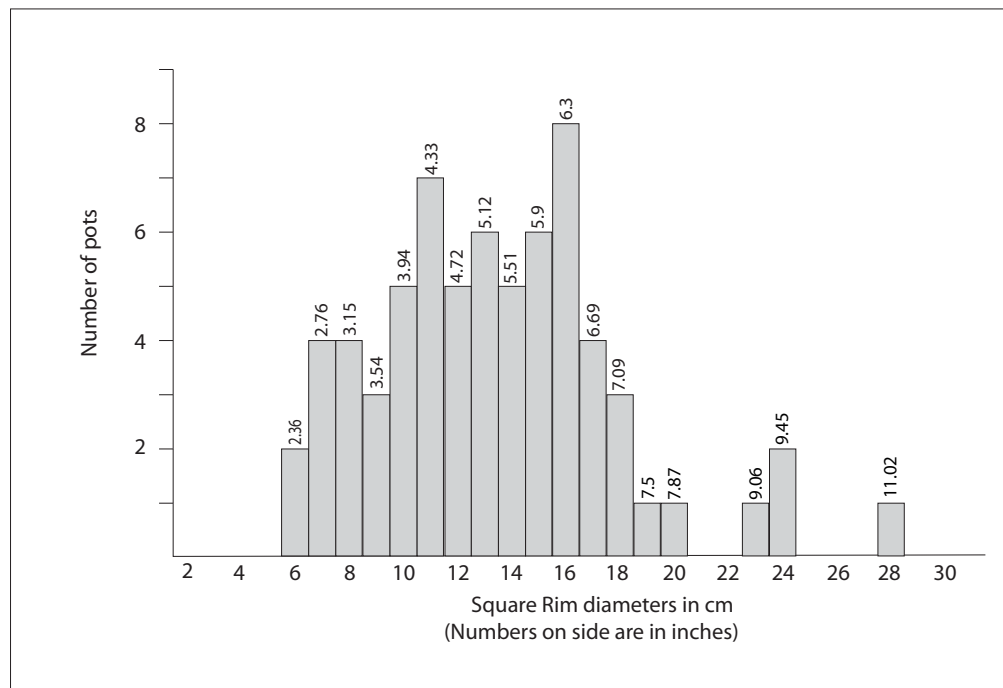


Figure 4.9: Chart of the diameter of square rim planting pots.

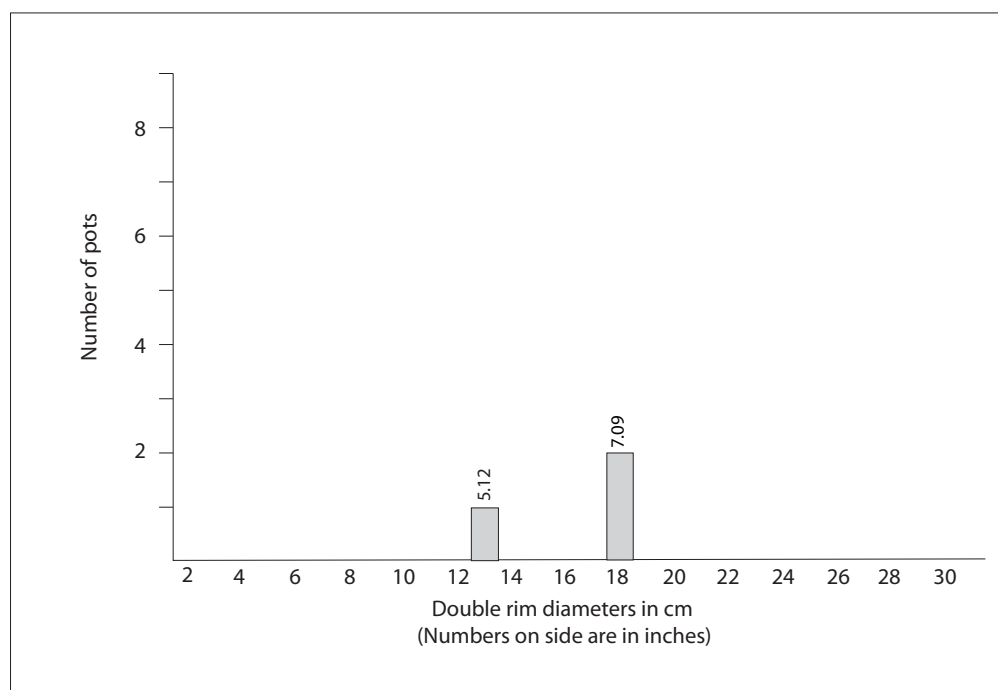


Figure 4.10: Chart of the diameter of double rim pots.

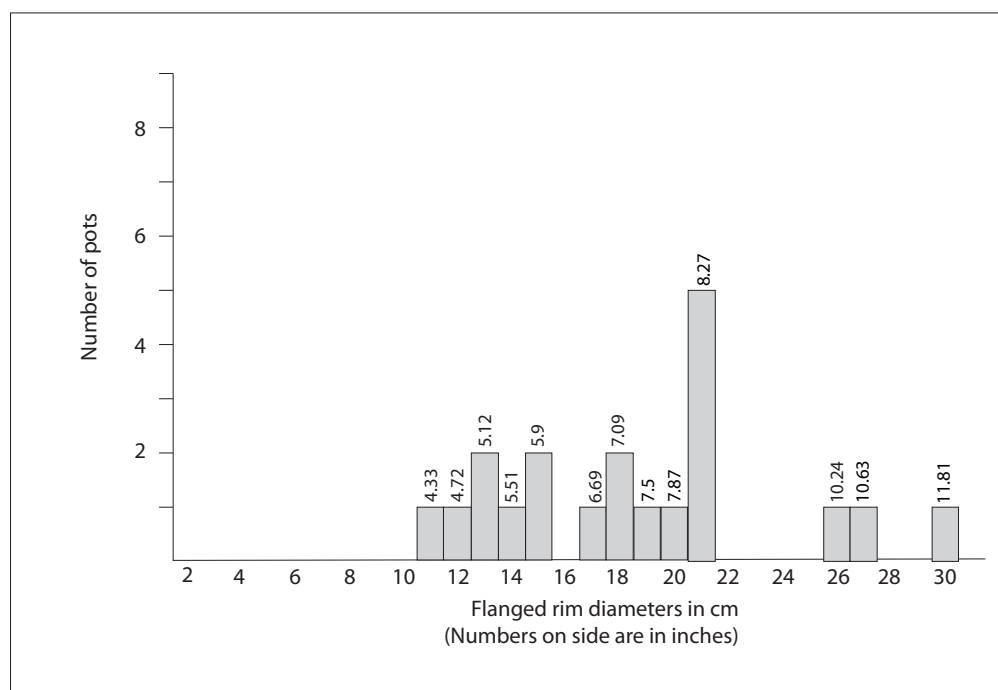


Figure 4.11: Chart of the diameter of flanged rim pots.

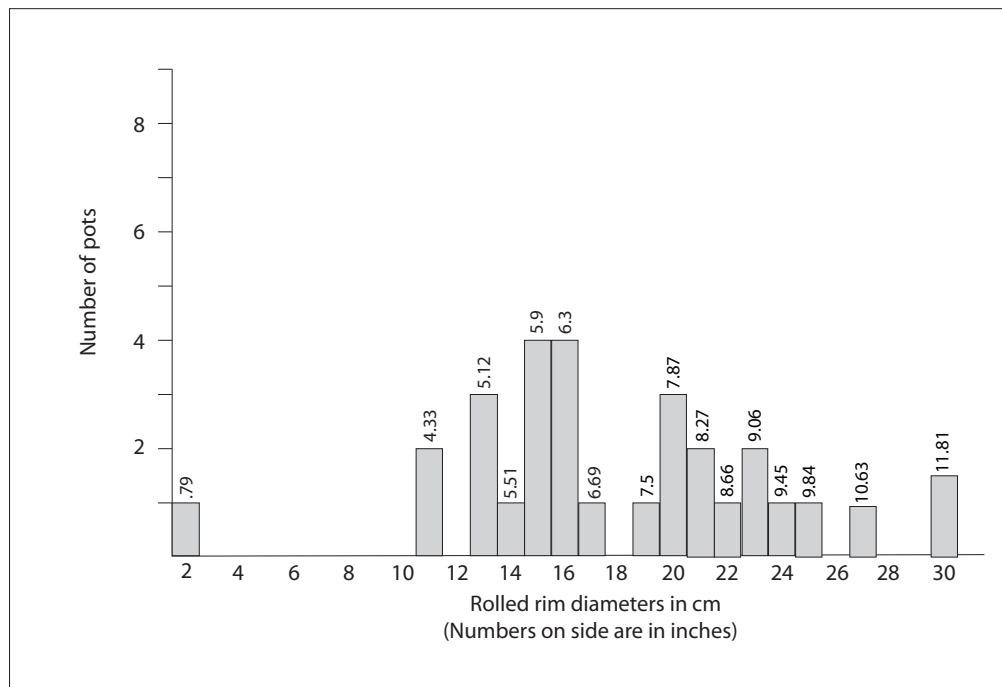


Figure 4.12: Chart of the diameter of rolled rim pots.

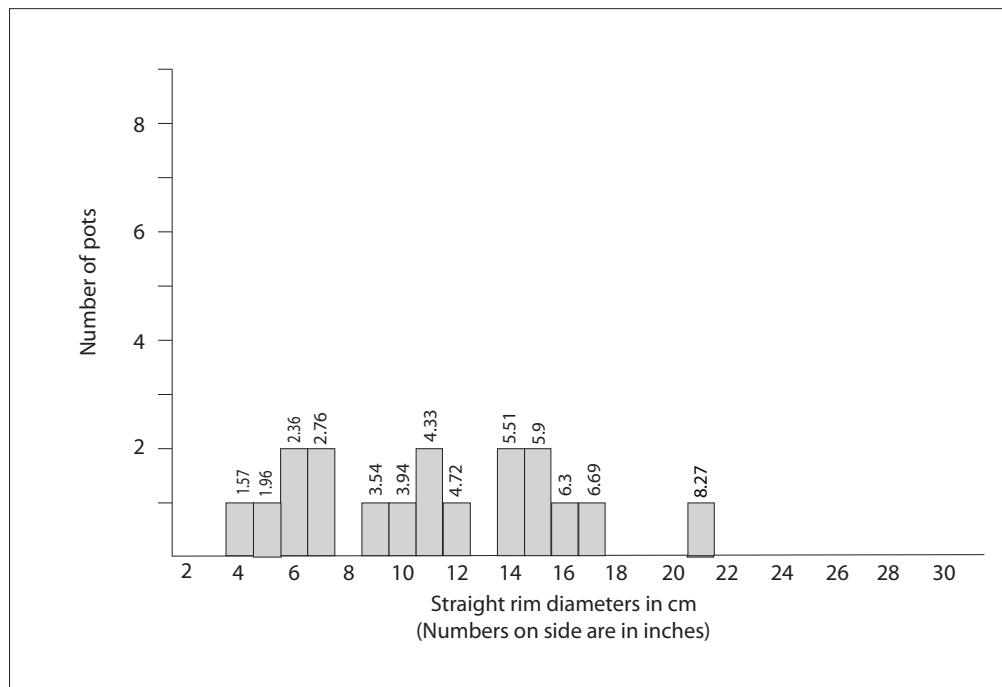


Figure 4.13: Chart of the diameter of the straight rim pots.

appears to have been a lidded vessel, with parts of the rim present in the greenhouse collection. It is unknown if the vessel had a lip. This vessel form is most like a redware pot form described by Lura Woodside Watkins (1950:234,235),

Rounded pots with cover, with or without pouring lips, are a nineteenth century form once common in Massachusetts and New Hampshire...the larger ones were pots for “emptyings,” the handful of dough reserved from each baking to ferment and provide leaven for the next batch.

It is unknown what this vessel was used for or why it ended up in the greenhouse context. Perhaps bone and other organic scraps from the kitchen were carried out to the greenhouse to be used as fertilizer explaining the presence of this pot, broken in large pieces, in the greenhouse context. Or maybe the pot used for “emptyings” was broken in the house and used in the greenhouse French drain context for drainage (Beranek 2010: personal comm.). One of the proposed later functions of the greenhouse was as an area for the stockpiling of bone, as evidenced by the large faunal collection, for making bone manure (Beranek and Smith 2010:6,7).



Figure 4.14: Vessel #81.

Paste Color

Paste color was recorded on the vessel record sheet and entered into an Excel spreadsheet. The paste color of each vessel was matched to color tiles on the Munsell Color Chart. The majority of the vessels fell on the 5YR sheet, with some falling on 2.5 and 7.5YR with only one vessel on the 10YR sheet (Table 4.4).

Color	2.5YR	5YR	7.5YR	10YR
Count	21	107	20	1
Percent	14%	71.5%	13.5%	1%

Table 4.4: Results of the Munsell color chart.

The purpose of recording the color of these vessels initially was to draw conclusions about the origin of clay or manufacturer, though proved it somewhat useful in the mending process. When searching for probable mends, the Excel spreadsheet was referenced in order to spot common characteristics such as rim diameter and rim style. In lieu of those dominant characteristics, paste color was consulted. Though not always reliable due to the subjective nature of color, there were instances in which matches were identified solely based on the data recorded regarding paste color. Since the Munsells were taken in a lab setting with florescent lighting over the course of a few weeks, the author feels it necessary to regard the color designations with reservation.

It is not possible to make conclusions about clay or manufacturer origins on the basis of color itself. The unpredictability of early kiln burning temperature can vary the color of the potter's earthenwares from one firing to the next (Woodside Watkins 1950:9). In addition, variation of temperature from one side of the kiln to the other will also produce differing surface color throughout the batch, also producing color variations throughout a single vessel.

Bases

Central Base Holes

There are at least 59 different bases from 261 base sherds. Thirty two sherds from the total number of base sherds are either associated with complete bases or at least extend to the center, indicating that they all have central drainage holes of diameters of

.5-4 cm (Table 4.5) (Figure 4.15). The majority of the central holes are 1 to 2 cm in diameter and 6 that are 2.5 to 4 cm in diameter. The smallest central hole is .5 cm with just one present and the largest hole is 4 cm in diameter, also with just one example present in the assemblage. The majority of the central base holes are 2 cm in diameter.



Figure 4.15: Base holes. Photo by Melody Henkel.

Size	.5cm	1cm	1.25cm	1.5cm	1.75cm	2cm	2.5cm	2.75cm	3cm	4cm
Total	3%	19%	3%	16%	12.5%	28%	6.25%	3%	6.25%	3%
Count	1	6	1	5	4	9	2	1	2	1

Table 4.5: Counts of bases with central holes with the diameters in centimeters.

All of the bases, except for two unassociated sherds, have crude or plain bottoms that appear to be just wire cut. The two exceptions are “finished” on both the interior and exterior surfaces. This is unusual for handmade planting pots of this period. One of the sherds, base #32, looks as though there was some tooling on the bottom to create the finished look, and it is also one that could be classified as a thumb pot, which will be discussed later. This base sherd also has a light sheen, which may have been achieved by burnishing (Dennis Picota 2010, pers comm.). This unique base has a 4 cm [1.5 in.] diameter and a 1 cm [approx .5 in.] central drainage hole.

The results of this investigation indicate that all the bases in the Gore Place collection that we have large enough pieces of have a centrally located hole for drainage. All of the complete bases have a central hole and all of the other base sherds that we have that include both the center of the pot’s base and the junction of the base and wall, indicate that all of the pots in this collection have a centrally located drainage hole. The significance of all of the pots having a centrally located basal hole for drainage is discussed in the next chapter.

Base Diameters

The base diameters were measured in centimeters, and they range from 4 cm [1.5 in.] to 21 cm [8 in.]. Such as in the rim diameters, the base diameter chart shows that there is a greater number of pots with base diameters falling within the middle range, while there are fewer examples of both the smaller and larger base diameters. The one

exception is that there are seven 5 cm [2 in.] diameter pots, which are just slightly larger than what would be considered thumb pots. The largest recorded base diameter is 21 cm 8 in.

Saucers

Saucers are absent from the Gore Place collection and their absence is to be expected within a greenhouse type context. Saucers were used in house interiors rather than in a context to promote growth as saucers inhibit drainage, keeping moisture stagnant (Loudon 1857:81). The significance of the lack of saucers is further discussed in the next chapter.

Foot Rings

Also absent from the Gore Place planting pot collection are vessels with foot rings. “A foot ring is a raised lip that runs along the outer edge of the base, so that the vessel sits on the ring rather than the base itself” (Goodwin and Breen 2005:5). Goodwin and Breen’s (2005:5) research on flowerpots at Mount Vernon indicates that “[foot] rings...appear to be associated with 19th and 20th century flowerpot styles.” The absence of the foot rings from the Gore Place collection substantiates their conclusion somewhat as they are absent from this early 19th-century context of which could possibly also include late 18th-century pots as well.

Thumb Pots

It was not immediately evident when sorting the sherds from various contexts by rim diameter that there were thumb pots present in the Gore Place collection due to the fact that I had not converted the rim diameters measured in centimeters into inches.

When examining the bases, it became clear that there were a few unusually small bases that matched the description of thumb pots which I had come across in Mrs. Jane Loudon's 1857 gardening manual, *Gardening for Ladies; and Companion to the Flower-Garden* (Figure 4.16). The thumb pot is described at length in the next chapter under the subtitle pot sizes.

Decoration

The decorated or markedly larger body sherds were examined next in addition to the decorated rim sherds and decorated vessels with full profiles. The Gore Place collection exhibits a few different decorating techniques with variations of each (Table 4.6). “[Flowerpots] (or at least those designed for practical use in an outdoor garden) tended to be simple and undecorated” (Goodwin and Breen 2005:5). In relation to the quantity of vessels within the Gore Place collection, there are few decorated vessels. Out of 150 vessels attributed with a rim type, there are only 12 that are clearly intentionally decorated.



Figure 4.16: Thumb pot bases compared to larger bases. Photo by Melody Henkel.

Rim Style	Double	Collared	Flanged	Rolled	Ruffled	Straight
Count	0	0	4	6	1	1
Percent	0	0	33%	50%	8%	8%

Table 4.6: Breakdown of rim types with decoration.

Decoration	Incised Band of Lines	Incised Wavy Band of Lines	Wavy Figure 8 with Band of Lines	Textured	Slip Decorated
Count	6	2	3	1	0
Percent	50%	17%	25%	8%	0

Table 4.7: Breakdown of decorative types among identified vessels.

Decoration	Incised Band of Lines	Incised Wavy Band of Lines	Wavy Figure 8 with Band of Lines	Textured	Slip Decorated
Count	10	3	7	2	1
Percent	43.5%	13%	30.5%	9%	4%

Table 4.8: Breakdown of decorated unassociated potsherds.

Only 8% of the planting pots in the Gore Place collection have some sort of applied intentional decorative design or technique. Of that 8% that are decorated, 50% have a rolled rim, 33% are flanged, 8% are ruffled, and another 8% have a straight rim. As it is shown in Table 4.6, there is only one instance each of the ruffled rim and a straight rimmed pot having been decorated.

I chose to keep decorated vessels (Table 4.7) separate from the decorated unassociated sherds (Table 4.8) because it is not possible to say with certainty that the unassociated sherd do not belong with any of the decorated vessels that have been assigned a vessel number as a result of the minimum vessel count or other significant characteristics. It is clear that there is a significant correlation between the decorated vessels and the unassociated sherds. The percentages of the kinds of decorative styles illuminate a remarkably similar trend. The majority of the associated and unassociated vessels have some kind of incised band of lines. The incised wavy figure eight pattern is the second frequent design, with incised wavy lines third. The textured effect and the slip-decorated sherds are scarce within this collection.

Incising or Tooling

The most prevalent decorations are the vessels with incisions, alternating bands of “tooled lines enclosing combed wavy lines” (Table 4.7,4.8; Figure 4.17). “Another method of decoration was effected by tooling bands of straight or wavy lines about a vessel as it was slowly turned on the wheel” (Woodside Watkins 1955:71). Woodside Watkins (1950:71) believes that this method of decoration “was more often practiced in the seventeenth and eighteenth centuries,” but the Gore Place collection clearly shows that these pots were still in use in the earlier part of the 19th century. These bands can be of varying thicknesses with differing counts of lines.



Figure 4.17: Vessel 40 showing incised decoration. Photo by Melody Henkel.

The wavy lines are sometimes close to the bands and at other times are evenly spaced. Vessel 42 exhibits the tooled band of lines alternating with bands of wavy lines (Figure 4.18). The first band of six straight lines, 14 mm wide, begins 32 mm below the base of the rim. The next band is also 14 mm wide and comprised of six wavy lines. The peak of the wave is 11 mm beneath the first band, but unfortunately we cannot see where the bottom of the wave terminates.



Figure 4.18: Vessel 42 showing bands of wavy lines. Photo by Melody Henkel.

The fact that both bands are tooled with the same number of lines and are the same thickness indicates that the same tool was used to make the incisions. Many of the traditional potter's incising tools were handmade. It may be possible to determine if the

same tool was used on similarly decorated pots in the collection based on the distances between the individual points on the comb (Woodside Watkins 1959:1).

Vessel 46 is also decorated with a tooled band of lines and is followed by a band of wavy lines. The first band is located 30 mm under the rim is made of five to six lines. It appears that the intention was to have a band of six lines but the incising tool was not applied consistently while the vessel was slowly turned. The peak of the band of wavy lines is approximately 15 mm beneath the bottom of the top band. The band of wavy lines is made of at least 5 lines since the bottom is not visible. It is possible that both the straight and wavy bands of lines could have been made with the same incising tool, though it is impossible to determine with the absence of pieces to allow the continuation of the pattern.

There is variety in the thickness of the grooves produced by the tool used by the potter. In many instances in the Gore Place collection, the lines are fine, though there are a few examples where the grooves are particularly thick and deep. One such sherd exhibits the interface of where the band of wavy lines began and ended and it is evident that the potter took care to match the lines up to a certain extent, but did not put much effort into making sure that it was perfect (Figure 4.19). The combed wavy line motif was also turned into a figure eight design or a braided motif, also enclosed by tooled lines on some vessels.



Figure 4.19: Pot sherds with bands of wavy lines: top sherd is the one referred to in the paragraph above. Photo by Melody Henkel.

The tooled line motif is also exhibited on vessels that almost look undecorated but in fact have faint single incised lines at irregular intervals without being within a context of a band. The lines on one such sherd for example has two lines 14mm apart and then the third down 11 mm, which points to the fact that the potters were not only making handmade pots but that they sometimes decorated their pots just slightly and irregularly.

The banded motif also appears without the combed wavy lines, alternating bands of tooled lines of differing counts (vessel #40 & 43). Vessel 40 begins with 4 lines comprising a band of approximately 6mm wide and beginning approximately 12 mm below the rim (Figure 4.17). The next band of five incised tooled lines about 6 cm wide as well begins roughly 16 mm beneath the previous band. The third band is wider with about 9 combed lines about 13 mm thick begins 18 mm beneath the second. The last band seen on the fairly large planting potsherd is comprised of seven tooled lines and is 9 mm wide, beginning just 8 mm beneath the third band. The spaces between the bands are smooth. Just for contrast, vessel 43 was examined to describe how similarly decorated pieces could be identified to be separate vessels for the purposes of discerning vessel counts. This vessel, also decorated with tooled bands of varying numbers of lines, spaced at differing intervals, begins with a band of nine incised lines, 14 mm wide, 11 mm beneath the bottom of the vessel's rim. The space between the first band and the next is smooth like vessel 40, the second band is comprised of six lines and begins 9 mm down from the first, almost half the distance apart than the first and second lines from vessel 40. The third band that can be seen on vessel 43's sherd has at least ten incised lines and is over 14 mm wide, but the bottom of the band is not visible.

Vessel #45 exhibits what may be a decorative technique, though it may be just an accident of the kiln or perhaps of the clay. The vessel appears to be decorated with black slip but it is present on the exterior and interior of the vessel, as well as within the paste.

The most unique of all the rim types and of the decorative pieces is the ruffled rim vessel, which is “embellished with tooled ridges and wavy lines and row of beading” (Woodside Watkins 1950: Figure 4.7).

A more bulbous form [of the flower pot] appeared in the early 1800’s and later; and eventually the shallow pot with ruffled rim became a favorite. The ruffled pot was often made to hang and was provided with holes for strings or wires. (Woodside Watkins 1959:11)

There is not enough of this pot to tell if it has any holes. It appears that after the potter flared out the rim that he pinched around the pot to create a ruffled appearance. Directly underneath the base of the rim there is a band of what is called beading. The beading looks like it was created on a 1.5 mm raised ridge about 3 mm wide. It is difficult to see if the ridge was applied with slip or if it had been pulled out during turning. The potter then used a thin tool to create tick marks to create the beaded look. There is evidence of this technique just below the beaded band where the tool scratched the surface. The beaded band is then followed by a smooth space before another band of six tooled lines. It appears that the banded line decoration is repeated about 15 mm under the top band of lines, though only a couple of lines are visible.

Slip Decorated Earthenware

The Gore Place planting pot collection has one example of a sherd with slip decoration (Figure 4.20). The colors are basic, black and white. From what can be seen on the sherd, there is a painted white circle about 19mm in diameter with four black dots spaced out around it. Toward the top of the sherd, quite possibly beneath where the rim might be, is a strip of solid white. This is the only example of its kind within this collection. Excavations at the early Hews pottery site in Weston recovered some slip-decorated dishes though Hews could have experimented with decorating some planting pots too (Woodside Watkins 1950:43,44).



Figure 4.20: Slip decorated sherd. Photo by Melody Henkel.

There is one example of a severely burned sherd that is worth noting just for the fact that on its exterior surface there seems to be a series of circular gouges which could be merely coincidental. The process of being burned could have caused chunks to flake off causing the pocked effect. This piece was not assigned a vessel number because it cannot be determined if it is indeed a unique vessel unassociated with the others due to the severity of the burning.

Texturing



Figure 4.21: Textured or washed effect. Photo by Melody Henkel.

Texture is another form of modification that was used for decorative purposes (Figure 4.21). There are only two sherds that have what could be described as a washed effect which look like the decoration was created with a damp cloth in a checked pattern to create texture for interest.

Intentional Markings



Figure 4.22: Detail of vessel #35's markings. Photo by Melody Henkel.

Unlike the decorated pieces of planting pots, we have one nearly complete example of an “undecorated” pot that shows evidence of intentional modification in the form of scratches (Figure 4.22). These scratches form Xs, numbers, and letters, one of those being a large scripted lower case G, possibly 1716g. There is one other sherd that

appears to have the same intentional markings, possibly an X but it is clearly unassociated with vessel #35 due to the differences in wall thickness.

Significant Vessels

Mending of the Pots



Figure 4.23: Mended pots; vessels 41, 36, 50, 35. Photo by Melody Henkel.

Fortunately many of the contents of context 637 remained in clusters of planting pots, ultimately making mending easier. The vessels that originated from context 637 are the more complete vessels that have a full profile from top to bottom to allow height measurements to be taken (Figure 4.23). Having a full profile also enables one to get a

sense of the vessel form, which may indicate function. Judging from either base or rim alone, it is very difficult to predict the size of the vessel. For example, just by looking at either the rim or base by itself, one would suspect that the height of the vessel would be proportional to its base or its rim, however such is not always the case. A rim and base were united of one vessel and it resulted in a very wide but relatively short vessel. The attempt to mend and cross-mend sherds did prove to be useful in obtaining information and well worth the time spent. Just looking at all the bases immediately gives a sense of the wide range of size variation, scaling from large pots that were potentially used for growing trees to uncommon tiny thumb pots that were used for starting seeds or cuttings (Loudon 1857:53). The vessels out of context 637, which is the fill of a French drain north of the greenhouse extension (Beranek 2010: personal comm.), are the more complete vessels from the excavation and some mending and cross-mending has produced five complete planting pot profiles: Vessels 35,36,39,41, and 50.

Vessel #	Height (cm)	Rim Dia. (cm)	Base Dia. (cm)	Rim Type	Context
35	17	21	13	Flanged	637
36	14	15	11.5	Straight	637
39	26	30	21	Roll	637
41	11	13	7.5	Flange	620,659
50	18	18.5	12	Rolled	718

Table 4.9: Statistics of vessels with complete profiles.

Vessel #35



Figure 4.24: Mended vessel #35. Photo by Melody Henkel.

Vessel #35 was excavated from context #637 and all 9 pieces mend with one another (Figure 4.24). The vessel rim diameter is 21cm, the base diameter is 13cm, and it is 17cm high with a 2cm central drainage hole. The rim is flanged, flat on the top but rounds in. The vessel is undecorated, sturdy, simply a plain functional pot but is inscribed with intentional markings of scratches, Xs, a series of numbers, a large lower case scripted G, and possibly an upper case A (Figure 4.22). Within the series there is a 1, then what looks like a 4/4, and then 16g. In addition, too small and faint to make out, is

a numerical equation. It appears that someone was trying to keep track of what was being grown in the pot or of its progress (Beranek and Smith 2010:7). Cushing (1814:5) states, “[no] gardener should ever neglect to *put the name or number* to each species as they are sown” (emphasis added). When taking into consideration Mr. Gore’s interest in experimental agriculture, this conclusion of the purpose behind the markings is not unlikely. The interior of the vessel’s walls are clearly distinguished as handmade, given the evidence of the potter pulling up the clay to form the walls, with the thickest part of the vessel walls toward the bottom and tapering slightly toward the rim. Present on the exterior of the vessel are fingerprint smudges. The outside of the base has a shallow groove running along the bottom. Lastly, the bottom appears to have been cut off the wheel in the traditional manner of the potter using a wire with wooden handles (Buxton 1935:148). This vessel is certainly the most interesting and relative piece regarding the topic of scientific agriculture given the history of Mr. Gore’s interest and that of the Lymans as well.

Vessel #36

Vessel #36 is a short, stocky pot, and relatively thin compared to the other pots of similar base diameters (Figure 4.25). This pot was surprising with its short stature and its relatively straight sides, with minimum flaring. This pot is mentioned in the analysis chapter as a possible hyacinth pot. It is light in color, more yellow than orange with brown speckles and fingerprints over all surfaces. It too possesses evidence of being wheel turned, even with its extreme and consistent thinness, from the base to rim.



Figure 4.25: Mended vessel #36. Photo by Melody Henkel.

Vessel #39

Vessel #39 is the largest of the pots with complete profiles; it is also a decorated planting pot with the figure eight or braided motif encompassed by two bands of six to seven straight lines one over and one underneath (Figure 4.26). The inconsistency of the number of lines makes it difficult to determine if the same wire tool was used for all three series of markings, but when considering the other pots, it is very likely. Random smudges and some deeper fingerprints, pressed into the clay, are present on this



Figure 4.26: Mended vessel #39. Photo by Melody Henkel.

vessel as well. This vessel is made of slightly heartier clay, as some temper, small gravel pieces, is visible. This vessel was initially associated with sherds from what was later determined to be vessel #183. The initial association was based on rim style and other characteristics. It was not until the profile was mended that the two sherds from vessel #183 were determined to be a separate vessel. This became evident when the decorative bands of tooled lines clearly did not match. The mending proved once again useful for the purpose of better determining a minimum vessel count, which in this case resulted in expanding the count of vessels present in the assemblage. There is little surviving of the

vessel's base in relation to the rim and wall portions. It can be assumed that a vessel of this size would surely have a central drainage hole, though without the necessary pieces we cannot say definitely. It does however appear to have the look of the other base bottoms. All the sherds came from context 637.

Vessel #41

Vessel #41 is the smallest and daintiest of the vessels that we have a complete profile for (Figure 4.27). It has a flanged rim and a tooled wavy band of four lines that begin under the rim. Underneath that there is a band of four straight lines of the same width as the wavy ones, which renders it likely that both sets of markings were created by the same tool. The vessel is 11 cm high, has a rim diameter of 13 cm, a base diameter of 7.5 cm, and a 2 cm centrally located drainage hole. The exterior of the vessel is covered by multiple sets of fingerprints, despite being an ideal example of a more decorative vessel.



Figure 4.27: Mended vessel #41. Photo by Melody Henkel.

Vessel #50

Vessel #50 is another plain, sturdy pot, undecorated and unremarkable (Figure 4.28). This vessel too is plagued with fingerprints, but is otherwise unaltered. Like the other vessel in this assemblage, the pot was clearly turned on the wheel as evidenced by the signs of turning present within the interior of the vessel's walls. The central base hole of this vessel is larger than some others of its size, 2.5 cm, with a vessel height of 18 cm, a rim diameter of 18.5 cm, and a base diameter of 12 cm. The base has two deep

incisions but they could be resultant from trowel excavation due to the “clean” look of the scars.



Figure 4.28: Mended Vessel #50. Photo by Melody Henkel.

The next chapter will put the results of this chapter within a cultural and historical context using the contemporary American and English gardening manuals of the era.

CHAPTER 5

ANALYSIS

This chapter will analyze the results from the previous chapter by putting the data collected from the Gore Place planting pot collection within the social and historical context in which the pots were utilized, also making assertions on what kinds of activities were performed within the greenhouse. Most importantly this chapter will demonstrate that it is possible to determine the level of intensity of the activities executed within the greenhouse by determining planting pot vessel types and comparing them to the historical literature of the time. The contemporary 19th-century gardening manuals were used as guides to learn what kinds of pots are in the Gore Place collection, what context they were used in, and most importantly, who would have used certain kinds of pots. The chapter begins with a discussion of the problem with pot sizes in the early 19th century with a call for a universal standard, and then proceeds to an analysis of the different types of pots within the collection and how they correspond historically, and ends with what is known to have been grown in the Gore Place greenhouse and what could have been grown there based on popular 19th-century greenhouse plants, the pots and the pot sizes.

Problem of pot sizes

One of the main objects of this thesis is to see if it is possible to correlate the sizes of planting pots with what may have been grown in the pots. The literature of the early 19th century used different terms to describe the same pot size. Some examples of these inconsistencies within the literature follow. In regards to the preparations to be made for repotting cuttings in the hothouse, Cushing (1814:15) recommends that, “a quantity of pots of the proper size be prepared; I seldom use larger than one shilling, or for the largest cuttings, those at one shilling and six-pence per dozen, or as they are generally called forties, and forty-eights.” Referring to pots in terms of what they cost is very confusing due to the differences in cost according to region, especially since many of the gardening manuals of the time were being produced in England with a wide American readership (Hovey 1839:47). Cushing (1814:45,79) did attempt to avoid confusion in the inclusion of the terms for pots by cast but also refers to “a middling sized flower-pot,” and for repotting seedlings recommends the following:

The largest size pots I would recommend for this use, (unless the plants are particularly strong) are what are generally called small sixties, or halfpenny-pots: but for hearth, and such like very small articles, a still less size is to be provided; these are known by the very appropriate name of thimble pots, on account of their diminutive size.

Hovey (1839:46-50,) the editor of *The Magazine of Horticulture*, contributed an article titled, “Some Remarks on the sizes of Flower Pots usually employed for Plants, with hints upon the importance of having some standard for classifying the various sizes,” in order to call for the standardization of pot sizes.

The great number of plants which are grown in pots, and the frequent rules which are laid down in articles treating upon the management and cultivation of flowers, seem to render it somewhat important that there should be some system adopted for classifying the various sizes. So far as we have given advice upon the growth of plants, we have always had a classification of our own, by which we might be understood; and when our correspondents have had occasion to recommend a particular sized pot, we have generally accompanied such designation with a reference to our own scale. But it is desirable that such a classification should be not only generally known, but put in practice throughout the country.

Hovey’s article makes it clear that there was no universal standard for pot sizes during the early 19th century. He does acknowledge the fact that individuals and institutions did have their own terms for the classification of pot sizes since the pots were all handmade in local potteries. The table below is my attempt at fitting the Gore Place collection within J. Loudon’s (1860:420) table from the *Horticulturist*.

The terms used by Loudon (1860:420) to name the pot sizes refer to how many pots were made from a specific weight of clay called a cast.

Earthenware pots for plants are made by the potter in what are called casts, each cast containing about same the quantity of clay, and costing about the same price, but differing in the sizes of the pots so much, that while in the first size there are only two pots to a cast, in the tenth size there are sixty... These are the sizes of the London potters; but at Liverpool the sizes and the proportions are somewhat different.

Sizes of Gore Place planting pot rims in cm.	In Inches	Loudon's Terms:	Loudon's scale rim diameters in inches.	Loudon's scale of inches deep.	Count of how many we have.
2	.79	Thumbs or eighties.	1 ½	2	1
4	1.57	Thumbs or eighties	1 ½	2	1
6	2.36	Sixties	2	2 ½	4
7	2.76	Forty-eighths	3	4	6
8	3.15	Forty-eighths	3	4	4
9	3.54	Thirty-twos	4	5	5
10	3.94	Thirty-twos	4	5	7
11	4.33	Thirty-twos	4	5	13
12	4.72	Twenty-fours	5	6	8
13	5.12	Twenty-fours	5	6	14
14	5.51	Sixteens	6	7	8
15	5.9	Sixteens	6	7	14
16	6.3	Sixteens	6	7	15
17	6.69	Twelves	7	6	7
18	7.09	Twelves	7	6	7
19	7.5	Eights	8	7	4
20	7.87	Eights	8	7	5
21	8.25	Eights	8	7	8
22	8.66	Sixes	9	8	1
23	9.06	Sixes	9	8	3
24	9.45	Sixes	9	8	3

25	9.84	Sixes	9	8	1
26	10.24				1
27	10.63				2
28	11.02				1
30	11.81	Fours	12	1	2

Table 5.1. Merging of the rim diameters of the Gore Place planting pots with Loudon's table of pots sizes.

It is true that in the earlier part of the century there was less call for the standardization of pot sizes as evidenced by Hovey's (1839:46-50) article. Account books of potters were few and their contents were fairly vague in documenting sizes, recording them as small or large. Hovey (1839:47) maintains that the descriptions of pot sizes varied so much, even between Boston, New York and Philadelphia, in the early part of the 19th century. Hovey (1839:47) explains,

[In] speaking of a particular sized pot, it should not be designated as a "four cent" or a "six cent" pot, a "forty-eight" or a "sixty-four" pot, a good sized pot, or a moderately large pot. Prices of pots vary in different sections of the country, and what we might call a "good sized pot," another might deem otherwise, and to designate by inches is a waste of words; rather let them be known by simple numbers, and these numbers to correspond to a scale by which pots should be made.

Hovey's (1839:48-50) pot sizes start from the smallest, the thumb pot, which he does not bother to assign a number to since only propagators have a need for them, then

the numbers 1-6. Hovey (1839:49) explains that even though pots come in larger sizes than the No.6, that those pots will be called Extra since,

They are scarcely ever made by the manufacturers, unless expressly ordered by persons who desire such for particular purposes. Wooden tubs, or boxes, generally answer as well or better than pots of large size, as they are apt to get broken, especially in transportation.

Size	Thumb	No.1	No.2	No.3	No.4	No.5	No.6	Extra
Top width	2 ½ in.	3 ¼ in.	4 ½ in.	5 ½ in.	6 ½ in.	7 ½ in.	9 in.	12 in. +
Depth	2 ½ in.	3 ¼ in.	4 ½ in.	5 ½ in.	6 ½ in.	7 ½ in.	9 in.	
Bottom width	1 ½ in.	2 in.	2 ½ in.	3 in.	4 in.	5 in.	6 in.	
English	thumbs or thimbles	forty-eight	thirty-two	twenty-four	sixteen	twelve	eight	
# of examples from Gore	6	9	28	22	34	16	20	2

Table 5.2: Table of Hovey’s proposed standards for pots sizes with corresponding English terms and possible number of examples from Gore Place. Vessel count used with reservation because rim diameters were only used on this chart and the figures are rounded to the closest of Hovey’s top width recommendation.

The benefit of Hovey’s (1839:49) proposed standards for pot sizes is that they “correspond very nearly to the English pots,” and likewise, “[this] explanation may be of some benefit to those who read the English periodicals, in which the pots are always designated in this manner.”

Loudon does not list 10” and 11” pot rim diameters on his scale of which the Gore Place collection has 7 so it is difficult to tell what they would have been considered as. The mention of pots being rarely made larger than Hovey’s No.6, which is a 9” pot, unless special ordered, is interesting since there are two pots in the Gore Place collection that fall within Hovey’s Extra pots size. Whether Hovey’s proposed standardization of pot sizes were put into effect or not, the fact that Hovey states that pots with a rim diameter greater than 9” were not generally available speaks to evidence that the Gore Place pots as possibly having been special ordered along with the thumb pots and various sized of bell glasses.

Pot Form and Size

Many other fanciful pots might have been figured and described; but in the general practice of gardening all these particular pots may be dispensed with; and, in truth, with the exception of the last forms, they are only found in the gardens of some amateurs. (Loudon 1860:144)

The general form of the majority of the pots in the Gore Place collection are fashioned similarly as the typical pots used for plantings throughout the 19th century. Loudon (1860:420), considered an authority on such topics as planting, gardening, greenhouses, etc, comments,

The garden pots in common use about London are generally made between a fifth or a sixth part narrower at the bottom than at top; but for particular purposes, such as that of growing hyacinth, pots are made almost equally wide throughout, and deeper than usual in proportion to their width. For striking, cuttings, or growing seeds, there are pots made broad and shallow, sometimes called pans or store pots.

The majority of the pots in the Gore Place collection are plain utilitarian pots, and the pots with decoration are simplistic in style, save for just two pots such as the ruffled rim pot (Figure 4.7) and vessel # 41 (Figure 4.27), which is finer and slightly more decorative than the rest. Lathrop (2000:80) states, “the shape of the flowerpot depended on the type of plant being grown and the aesthetics of the plant’s presentation.” Through the study of the characteristics of the Gore Place planting pots, such as size, placement of central hole, and the general shape of the pots, the previous statement made by Lathrop is reflected in the archaeological record.

In addition to pot form, pot size is also important in trying to figure out pot function. Nineteenth century gardening manuals are very specific regarding the size pots to use for each greenhouse plant, during each phase of planting. Buxton (1935:149) states “Flower pots are graded in size by half inches, from the tiny “thumb pots,” an inch in diameter, to huge affairs twenty-four inches across.” As discussed in the section of the problem with sizes, the 19th-century authors of the gardening manuals are so passionate about the pots that they also give their opinions and recommendations on pot size.

Flat Pots

As for the above reference to seed pans or store pots by Loudon (1860:420), it is important to note here that the Gore Place collection does not have any of this form. Rather the collection has small thumb pots in which seeds and cutting could have been started. Cushing (1814:3), in his *Exotic Gardener*, elaborates on the best kind of pot for seedlings,

What is commonly called the old fashioned or flat pot be neatly made, that is, to be something wider at the rim than deep, and contracted to about two-thirds of its depth, in width at bottom, inside measure; it is I think the best for this use...

Hyacinth Pot

Vessel #36 could quite possibly fit into Loudon's description of a hyacinth pot. The pot has a straight rim, has a 15 cm rim diameter, is 26 cm deep, and has an 11.5 base diameter. The vessel does indeed look quite uniform in width with a very slight flare at the top. Of all of the vessels in the Gore Place collection, this pot (Figure 4.25) looks least like the typical flowerpot in form.

Thumb Pots

The smallest of the pots were usually called thumb pots by horticultural authorities (Hovey 1839, Loudon 1857) or "thimble [pots], on account of their diminutive size" (Cushing 1814:79). These pots were used by propagators to start seeds and cuttings

(Hovey 1939:48; Loudon 1857:83). The excerpt below is Hovey's (1839:48) description of these tiny pots.

The smallest size made, is usually called the *thumb* pot, from the circumstance that, in manufacturing, the thumb only can be used inside to form the pot. The usual dimensions are about two and a half inches wide at the top inside; the same deep, and one and a half wide at the bottom. From its small proportions, and the little use that is made of it, except by propagators, we do not include it among those sizes which we designate by numbers.

Based on Hovey's contemporary description of thumb pots, the Gore Place collection has at least six thumb pots when considering rim diameter alone and two thumb pots when considering base diameter alone (Table 5.2). It is unfortunate, but the Gore Place collection of pots has neither a complete thumb pot vessel nor a full profile. According to Hovey (1839:48), casual gardeners did not have a need for thumb pots so the presence of thumb pots within the Gore Place pot collection substantiates the historical and documentary evidence that the greenhouse was used for serious horticultural endeavors, such as the propagation of plants, not merely for the pleasure of the casual enthusiast.

The Bell Glass and the Double Rim Pot

The bell glass was most commonly used for the propagation of plants and for the protection of plants, primarily seedlings, from drafts, also providing a humid environment

for those plants which require it (Noel Hume 1969:225). The bell glass is dome shaped and made entirely out of glass, and Ivor Noel Hume states that the bell glass came in at least two sizes, small and large by the year 1770 (1969:225). By the year 1814 there clearly were more sizes of bell glasses available. In Cushing's (1814:14), *The Exotic Gardener*, he instructs on keeping,

A few dozen of small bell glasses, (the white glass is best,) of as many different sizes, as are the pots in which the cuttings are intended to be planted; they should be fitted to the pot so as to rest on the inner side of it, about an inch below the rim, by observing which circumstance, when the pot is filled with earth, the glass will have room sufficient to sink a little into it, so as to perfectly exclude the external air: which is of very essential importance to the cutting while in a dormant state, that is, from the time they are put in until they begin to grow.

The above quote elucidates the fact that the bell glasses not only came in small and large sizes, but that various sizes of "small" bell glasses were available in the early part of the 19th century. By the mid 19th century, J. Loudon (1860:434) explains that,

Bell-glasses [varied] in dimension from the large green bell-glasses, eighteen inches in diameter and twenty inches in height, used in the open garden for protecting cauliflowers in winter and cucumbers in summer, to the small crystal

bell, three inches in diameter, and two inches height, for covering newly-planted cuttings.

C.K. Currie (1993:233) states that the double rim types with this “3”- shaped profile” of flowerpot is for the purpose of supporting a bell glass. Regarding the double rim pots, Noel Hume (1969:223) describes this rim type present in the 18th century, as rims which “were simply folded over and pressed to the walls with two fingers, thus giving the rim exterior a “3”-shaped profile.” The presence of the double-rimmed planting pots in this assemblage suggests, if they are indeed the ones in which Currie refers, that the four examples of this rim type are purely for utilitarian purposes rather than decorative. Cushing (1814:14) said that the bell glass should be fitted to the pot to rest on the inside of the pot, so what does Currie mean by the groove that receives the bell glass? Does it refer to a literal groove that runs along the top of the pot’s rim or does it refer to a double rim in which the bottom rim juts out further than the top of which the glass then rests with the top rim keeping the glass from shifting? If Currie does refer to the later, then the recovery of pieces of a bell glass, the top portion and many associated glass fragments within the context of the greenhouse may mean that the double rim type of planting pot is functional and not just decorative (Smith and Dubell 2006:49). However, the lack of existing bell glass rim sherds does pose a problem since in order for the bell glass to rest on the lower rim, the measurements need to be exact. This would mean that either the pot and the bell glass would have to have been sold as a set, or that there needed to be some sort of standardization of double rimmed planting pots and bell

glasses. Out of the four double rim sherds that are in the Gore Place assemblage, there are two sherds with the same rim diameter, and one that there is too little of the rim to measure. There is just one double rimmed sherd that looks like it would be able to receive and support a bell glass based on its dimensions. The absence of a rim from the bell glass makes it impossible to say for sure that the bell glass from the greenhouse was used in conjunction with any of the double rimmed planting pots in the Gore Place collection. Additionally, as mentioned in the previous chapter, Goodwin and Breen (2005:4) state that the double rim vessels are usually found to be more decorative than purely utilitarian.

Possibly the hyacinth could have been grown within the greenhouse under the bell glass that was recovered. In the 19th-century gardening manual *Gardening for Pleasure* it is stated that the hyacinth could be grown in a glass though it is unclear if it is grown in a pot with a glass over it or in a glass vessel (Henderson 1884:38). It is also stated in the 1835-1836 *Horticultural Register*, that “*Hyacinths* and other bulbs [are] intended to flower in glasses...” and that Camellias were also covered with a bell glass after being grafted (Cushing 1814:12). There is a possibility that the Gore Place planting pot, vessel #36 (Figure 4.25) is a hyacinth pot.

Uses for Pots of a Certain Size

The propagation of plants by seeds is accomplished by the seeds being “potted singly in two and a half or three inch pots as most convenient, until such a time as they are to be planted out in the open ground.” (Henderson 1884:41) Strawberries were

grown in 2-3” pots as well (Henderson 1884:154). These tiny pots were not only used for starting seeds but also used for cuttings (Loudon; Henderson 1884:45). The cuttings were put into these little 2-3” pots with light soil (Henderson 1884:45). Cuttings of plants such as “Verbenas, Heliotropes, Fuchsias etc..., root in a week, while Roses, Carnations, or Azaleas, take two, three, four weeks” (Henderson 1884:45).

Four inch pots were used for *Calceolarias*, “the herbaceous kinds, when grown about one inch high ought to be divided, and put into four inch pots,” until February when it is time to transplant them into a larger pot (Hibbert and Bruist 1834:18).

Six inch pots are mentioned in the instructions for amateur gardeners within *Gardening for Pleasure*, by Henderson (1884:36), stating that the,

Hyacinth requires a pot six inches in depth and diameter; in potting it only necessary to fill the pot rather loosely to the brim, and press the bulb down, so that only about one-fourth of it appears above the soil. The pot should then be struck smartly on the bench to give the soil the proper degree of firmness, leaving it, when finished, about an inch or so below the rim of the pot.

J. Loudon (1860:420) describes the hyacinth pot as, “made almost equally wide throughout, and deeper than usual in proportion to their width.” Also requiring the 6” pots are the lilies, Jonquils, and snow drops (Henderson 1884:37).

Six to seven inch pots were used to plant narcissuses and tulips and are potted with 3 or 4 bulbs in a pot, whereas crocuses can be planted 10 to 12 in a pot (Henderson

1884:37). Hyacinths, as mentioned above belong to the category of being planted in a bulb pot.

The 12” pot is considered a large pot (The Conductors 1836:244). Starting out in small pots in May, the Tuberose and Caladium need to be repotted often once the roots fill the pot so that by August or September they “require a flower-pot twelve inches in diameter, and the plant should be, according to the variety 2-3 feet in diameter” (Henderson 1884:58). The Gore Place collection does not have any “twos,” according to Loudon’s table, which is the largest pot size, 18” diameter at the rim and are two to a cast. The greatest rim diameter out of all the Gore Place planting pots is a 30 cm pot, which is approximately a 12” pot, and as previously noted, it is regarded as a large size pot (The Conductors 1836:244). Following Loudon’s size charts, there are no twos in the Gore Place collection but there are two pots that could definitely be considered fours, which again are 12” pots. The significance of there being 12” planting pots and none greater will be discussed in the following section on trees.

Sizes neither Small nor Large

Gardening for Pleasure recommends the following sequence for moving plants into larger pots: a plant in a pot 3” wide should be moved into a 4-4½” pot, one in a 5” pot into one that is 6, 6½ or 7” wide in diameter, and so forth (Henderson 1884:61). The gradual but constant repotting of the plants is integral to the plants success. A great fear of the 19th century gardening experts was the over-potting of plants, potting plants into pots that are too large, therefore frequent repotting and the availability of a variety of

sizes of pots was required. The fact that the Gore Place collection has a wide variety of sizes between the few small and large sized pots, approximately 129 pots that fall within the middle, indicate that there was a quantity of pots of various sizes on hand to adequately maintain the greenhouse plants according to the recommendations of the gardening experts.

Trees in Pots

The Conductors, contributors to the 1836 edition of the *Magazine of Horticulture* (242), write “the value of peach trees in pots is exceedingly great to those persons who possess stoves and green-houses; as a succession of fruit may be produced the year round.” The previous statement suggests that trees were sometimes kept in pots while some other authors report that trees were sometimes grown in tubs or baskets to reduce the expectedly high instance of breakage when large trees are in pots and moved around. Hibbert and Bruist (1834:59), nurserymen and florists, maintained that trees, such as oranges and lemons, are grown in tubs, and sometimes barrels, to be planted in the garden during the warmer months while others preferred that, the fruit trees were, “kept dwarf by severe pruning, [and] were planted in wooden tubs, which could be carried out in the summer to adorn the garden” (Hedrick 1988:221). In either case, whether dwarfed or not, many experts believe that tubs or barrels were appropriate for the growing of fruit trees. On the other hand, the Conductors believe that, “tubs and boxes answer very well, but they are not, in our opinion, so suitable as pots; they do not last long, and their appearance is not so neat” (The Conductors 1836:244). For fruit trees, Hovey (1938:242)

recommends that they should repotted into the sized pot in which they will bear fruit, “they should be twelve or more inches wide at the top, and about the same in depth.” Yet another source simply states that, “pots of the largest size used for green-house plants may be procured,” for the planting of cherry trees (Horticultural Register 1835-1836:100). Another example by the nurserymen, Hibbert and Bruist (1834:173), state that sometimes pomegranates were, “desired to flower in pots or tubs during the summer.”

There are two planting pots that can be considered 12 in. pots. These pots have 30 cm rim diameters, approximately translating into English as 12 in. Since the common recommendation for keeping trees in pots is by planting them in pots with a minimum rim diameter of 12 in., the presence of the two 12 in. planting pots present in the Gore Place collection is significant. After the death of Mr. Gore, it appears that Mrs. Gore continued the maintenance of the greenhouse. Orange and lime trees were sold off during an estate sale following Mrs. Gore’s death in 1834 (Brockway 2001:26; Dubell 2007:59). It is expected that when the orange and lime trees were sold then whatever they were planted in would have been transported along with them. The presence of 12” pots therefore is consistent with the presence of potted trees within the Gore Place greenhouse context, though the archaeological evidence suggests that there were few of these larger pots on hand, perhaps indicating that there were fewer trees in the greenhouse. Another consideration to be made is that perhaps due to the lack of additional 12 in. and greater pots that there is a possibility that whatever fruit trees were kept in the greenhouse were planted in wooden barrels or tubs as Hibbert and Bruist (1834:59) recommend, rather than breakable pots. This second hypothesis works nicely

when considering that both the Gores and Lymans were interested in agriculture at a level beyond that of an amateur. The constant tending and maximizing of the tree's environment would be more conducive to a non-breakable medium for the transportation of these plants in and out of doors when deemed appropriate.

Central Base Holes

Most common to this day, the flowerpot is associated with a single central base hole, however, not all planting pots are created equal nor for equal purpose. The authors of the historical gardening manuals are specific in pot requirements. This reflects in the archaeological record of the Gore Place Greenhouse by the fact that all of the pots have some sort of indication of a central base hole. Lathrop states, "Large pots which are designed to be buried in the ground will have drainage holes on the sides as well as in the center" (2000:80). This is very interesting since it should be expected that a wider variety of planting pots would be present in the Gore Place collection. The collection certainly does exhibit such a variety in sizes, specifically larger pots such as described by Lathrop, though without variation in drainage hole placement. It may be that the larger pots were employed in the garden or in hotbeds during the dismantling of the greenhouse, although a comparison with the planting potsherds recovered from the garden in a future study may elucidate additional variations of planting pot drainage holes.

Absent entirely from the Gore Place Greenhouse assemblage are planting pots that are completely without central drainage holes. As stated in the previous chapter, all of the bases and base sherds that cross the center of the base indicate the presence of a

central base hole. This is easily determined visually since the center of the base can be located by the rings left on the base interior due to it being turned on the wheel by the potter

The ruffled rim pot, as discussed in the previous chapter, could have possibly been a hanging flowerpot (Figure 4.7). To consider that this little pot was used for hanging, it should, “have drainage holes only on the side” (Lathrop 2000:80). The absence of any sherds, besides the base sherds, possessing an indication of drainage holes would suggest that there were not any hanging flowerpots nor larger pots to be buried in the ground as in a hotbed. There is precious little remaining of the ruffled rim flowerpot, so side drainage holes may have existed but cannot be identified within the collection because the sherds are unrecognizable or remain unrecovered.

Storage of Pots

By the time Henderson’s (1884) *Gardening for Pleasure* was published, gardening was an activity that was recommended to everyone and the manual was a resource that was available to the general audience. Regarding the repotting of plants, Henderson addresses the female audience, “I am particular in referring to this simple matter, knowing that it is no uncommon thing for ladies to break the pot with a hammer in their endeavors to get at the root, although they would barely sacrifice a bowl to get to the jelly” (Henderson 1884:61). The short statement speaks volumes about how redware pottery was regarded in the later 19th century, as inexpensive and disposable in comparison to the pottery of the interior household. Between the last year of the Gore’s

greenhouse use to that of the publication of *Gardening for Pleasure*, an invention of flowerpot importance was introduced which may explain the presumed insignificance of the pots in the later part of the 19th century. After Linton's pottery-molding machine was invented in 1861, flowerpots were made more quickly and less expensively as they became easily accessible (Lathrop 2000:58). The Gore Place planting pots precede Henderson's volume, being published after Linton's pottery molding machine was invented, so that while the Gore Place planting pots were available, they were not considered as dispensable as in the later portion of the 19th century. The expectation is that there needed to be an area to keep various sizes of pots available for repotting.

Specific instructions for gardening were available during the late 18th through the 19th century, from specific dimensions for the construction for greenhouses and hothouses all the way down to exact pot size for each phase of plant propagation. In order for one to follow the instructions for planting and replanting in pots exactly, the experts of the era insist that one must have on hand pots in a variety of sizes and a place to store the pots while not in use. The references to washing out pots implies that the pots were reused, though such a simple concept but the statement exemplifies the fact that the instructions in the manuals really were that precise (Henderson 1884:61, Cushing 1814:3). "A quantity of pots should also be prepared by *cleaning*, if they have been before occupied, but I should prefer new" (Cushing 1814:3).

So where would one store the variety of sizes of bell glasses and pots that are recommended to be kept on-hand? Loudon (1806:300) maintains, "S[heds] for implements, flower pots, hotbed frames, glass-sashes, or for working in during rain or

stormy weather, are requisite in every garden; they are generally placed behind the hot-houses, and serve at the same time to contain the furnaces, fuel, &c.” The literature indicates that storage of extra pots and bell glasses, as well as additional horticultural accoutrements, should be kept nearby. Beranek and Smith (2010:4) currently interpret the greenhouse extension as an area for such storage.

Marking of Pots

In regards to that plain pot, vessel #35 (Figure 4.22), with all the Xs and numbers on it, an alternate theory of what these marking mean, other than keeping track of the growth of the contents, could possibly be that the markings refer specifically to what was grown in the pot (Beranek and Smith 2010:7). Cushing (1814:5) lectures, “[no] gardener should ever neglect to put the name or number to each species as they are sown.” This explanation is plausible as well since when propagating from seed, especially while conducting experiments, it would be important to mark what is attempted lest the experiment fail. Perhaps this particular pot was used repeatedly for various experiments. Beranek and Smith (2010:7) report that there were “two pierced lead tags, one marked with a number 3, possibly for tagging and identifying specific plants,” in the same greenhouse extension context which also contains the abovementioned vessel #35.

What was grown in the Greenhouse?

From Cushing’s writing, suggestions can be made regarding the contents of the greenhouse. It is known that the Gores kept orange and lime trees but what else was kept

there? Unfortunately Gore's gardener Heathcott did not keep a journal, as far as anyone knows as Jacob Farrwell did. In the absence of such a journal, interpretive aids such as gardening manuals and magazines needed to be consulted for analysis. There is documentary evidence that flowers and plants such as roses and geraniums among other plants such as orange and lime trees were kept in the greenhouse (Brockway 2001:26,28; Dubell 2007:59). Other than the orange and lime trees, it is known that the pear was also grown on the property, most likely started in the greenhouse and then moved outside. Hedrick (1988:235) quotes,

There have been not a few mild manias in horticulture in America. From about 1820 to 1870, the pear was the most popular fruit in the orchards of 'gentlemen farmers,' and nearly as popular as the peach and the apple in commercial orchards.

The Heathcot Pear

Named for Gore's gardener, Mr. William Heathcot, the Heathcot Pear, or sometimes known as Gore's Heathcot, was propagated in 1812 by the gardener himself and started from seed (Bridgeman 1847: 119; Gore Place Society 1981:66). In *The Young Gardener's Assistant*, Thomas Bridgeman (1847:119), a gardener himself, describes "Gore's Heathcot," as "a native variety, highly esteemed in Massachusetts. Fruit of medium size; form long; skin of a uniformly light yellow; flesh melting, juicy,

and high flavored. The growth of the tree is handsome and vigorous, producing abundant crops in September and October.” The Heathcot pear is an autumn fruit (Bridgeman 1847:119). In the 1835-1836 volume of the *Horticultural Register*, under the title the “importance of cultivating good fruit,” there is a list of these “good” fruit under which “Heathcote” is listed underneath the pear fruit. “In 1830 Mr. Roderick Toohey, Mrs. Gore’s gardener, was awarded a premium by the Massachusetts Horticultural Society’s committee on fruits for “the best native pear,” at the society’s first spring flower and garden show” (Gore Place Society; 1981:66).

What else was grown in the greenhouse?

In addition to the orange, lime and pear trees, Gore’s Rhododendron Maximum was “honored” by Massachusetts Horticultural Society and “other unusual products of Gore’s farm were variegated orange trees, lemon trees and three different kinds of grapes” were shown at the societies competitions (Gore Place Society 1981:66). The Lymans, during their occupation of Gore Place, could have continued to grow plants similar to those they supported at the Vale such as pineapples, figs, lemons, limes and bananas (Dubell 2007:59; Pogue 2009,41). The pineapple was in vogue in the 18th century, so apparently the Lymans could have carried over their interest into the 19th century (Huxley 1962:236). Hedrick (1988:22) states that, “[from] about 1825 to 1875 or longer, the camellia was the most popular greenhouse flower in the North.” The Lyman’s estate the Vale is to date still grows camellias that are over a hundred years old, so it is possible that the Lymans and then the Lymans at Gore Place grew camellias in the

greenhouse since, “from about 1825 to 1875 or longer, the camellia was the most popular greenhouse flower in the North” (Hedrick 1988:222). The Lyman’s British gardener, William Bell, planned to lay out the Vale with “flower [beds], fruit trees, a peach wall, kitchen garden, and two greenhouses heated for the benefit of resident banana trees and pineapple plants” (Plakins Thornton 1989: 23,24). What is not known is where the “pine pits” would have been located within the greenhouse as they require quite a bit more heat than most greenhouse inhabitants (Huxley 1962:253). Beyond what we know the Gores and the Lymans grew, the only other way that we can theorize what could have been kept in the greenhouse has to be based on the archaeological evidence of the planting pots, and an interpretation of those with the aid of the historical literature of the time. A combination of planting pot sizes and fashionable greenhouse and hothouse plants of the period needs to be examined when coming up with a list of potential occupants for the Gore Place “hot-house.”

The presence of thumb pots within the Gore Place planting pot collection suggests that plant propagation was conducted within the greenhouse. Vessel 36, most likely a bulb pot, indicates that bulb flowers were grown there as well (Figure 4.25). We know that fruit trees such as oranges, limes and pear trees were present during the Gore occupation, and possibly later during the Lyman occupation, pineapples and flowers such as camellias were housed within the greenhouse as well. Roses were quite popular at the time and were also sold in pots at the Philadelphia market by Mr. Hibbert, later of Hibbert and Bruist (Leighton 1987:72). In particular Champney’s rose is often cited in the literature as a most desirable variety (Leighton 1987:72).

Popular 19th Century Greenhouse Plants in America

Leighton's appendix, "Plants Most Commonly Use in Nineteenth-Century American Gardens," was compiled using the lists recommended the 19th century nurserymen and gardening experts Joseph Breck, Thomas Bridgeman, Robert Bruist, A.J. Downing, Peter Henderson, G.W. Johnson, Francis Parkman, and F.J. Scott (Leighton 1987:299-379). The appendix is comprised of lists of Annuals, Bulbous Roots, Flowers for the House, Herbs, Perennials, Roses, Shrubs, Trees, and Vines (Leighton 1987:299-379). Leighton's list embraces the common plants of a 19th century garden, not specifically recommended for the greenhouse.

In *Gardening for Pleasure* Henderson (1884:63) recommends the following for use in the hot-house; Begonias, Bouvaidias, Clerodendrons, Euphorbias, Epiphyllums, Fuchsias, Heliotropes, Poinsetta, Roses, Tuberoses, etc. Henderson (1884:79) also mentions greenhouse plants that can go in a hothouse if placed further away from the heat source such as Agaves, Callas, Carnations and Fuchsias to name a few. As mentioned in chapter 2, it may not be important what the greenhouse was called, but the presence of what looks like a furnace or stove door helps make a case for a heated structure that could support some of these hot-house plants (Beranek and Smith 2010:4). Hibbert and Bruist (1834:62) point out that, "the flowers of those belonging to the Green-House are of a yellow or straw colour; the most of those that are red or purple, with the celebrated medicinal specie, belong to the Hot-house." There are many possibilities for the greenhouse inhabitants of the 1806 Gore Place greenhouse; we know that various fruit trees and flowers were kept by the Gores and possibly by the Lymans as well.

CHAPTER 6

CONCLUSION AND DISCUSSION

Conclusions

The presence of the greenhouse on the Gore Place property along with the necessary personnel and various horticultural paraphernalia are all evidence of wealth. Since not much is known about the greenhouse and its history in terms of documentary evidence, the analysis of the planting pot fragments lends important insight into the level of intensity of the activities performed within the greenhouse.

From the results of the Gore Place planting pot collection in conjunction with the historical literature, we can tell that plants were propagated in tiny thumb pots, plants were repotted several times and cared for with the use of a bell glass possibly used with a double rimmed pot and other specialized pots such as a proposed hyacinth pot. The investigation of planting pots within the Gore Place collection has identified from 2,083 sherds at least 150 distinct vessels with six different rim types and three different decorative styles along with the identification of the abovementioned thumb pot, ruffled rim pot, bulb pots, and double rimmed pot.

The pots ranged from a few tiny dainty pots to large sturdy pots, with a large quantity of a variety of sizes in between. All the sizes and forms present in the Gore Place collection are mentioned in some gardening manual. Though a universal standard

of referring to pot sizes was absent, there seemed to be a general consistency in how the Gore Place planting pots fit within the size recommendations by Bostonian Hovey and British Loudon.

The majority of the pots were undecorated, suitable for the functional nature of the greenhouse, but the few pots that were decorated could have been placed on the stands to be intentionally seen given the prominent location of the greenhouse along the entrance drive.

The distinctive sizes of the thumb pots and the two larger 12” pots, which usually required special-ordering from the potter, indicates there was much invested in this greenhouse. Not only did the Gores employ a full-time British gardener, but they also made sure that the gardener had the proper supplies to perform serious horticultural activities including creating new varieties of plants. The presence of the thumb pots in particular designates this greenhouse as more than a place where plants were simply maintained. The greenhouse was not only a status symbol but also a working statement of an ideal that the Gores subscribed to coinciding and reinforced with the philosophies of the elite societies Christopher Gore belonged to.

Comparison to other Studies

Chateau Saint-Louis

The Chateau Saint-Louis pots fall within the dates of 1740 and 1854, during which about a third of that period is contemporaneous with the Gore Place pot collection (Duguay 1990:119). The planting pot collection found in the Chateau Saint-Louis

excavations resembled the Gore Place collection in terms of rim types (Duguay 1990:119). It appears that the Gore Place planting pot rim styles possess a similar assortment of rim types; from earlier rounded rims, straight rims, and flanged rims, to the later “collared” rim style found to this day (Duguay 1990:119). The most striking difference between the two collections is that the most numerous of the rim types in the Chateau Saint-Louis collection is the double rim type, 23 examples, while the Gore Place collection only has four examples (Duguay 1990:120). The double rim pots in the Chateau Saint-Louis collection are associated with artifacts attributed with dates from 1740 to 1789 (Duguay 1990:120). The difference in frequency between the collections may be due to the fact that Chateau Saint-Louis’ double-rimmed pots were found within an earlier context and that the style was in the process of fading out by the time the Gore Place greenhouse was constructed. This would account for the low frequency of double-rimmed pots in the Gore Place planting pot collection. In terms of similar decorative styles, the Chateau Saint-Louis pots with “incised linear decorations” are associated with artifacts dating within a period spanning from 1780 to 1815 (Duguay 1990:120). Of the 8% of the Gore Place pots that are decorated, 92% have some kind of decorative incising, 50% of which are parallel linear incisions (Table 4.7). The Chateau Saint-Louis dates for the incised linear decorations align particularly well with the decorated Gore Place pots associated with rim types considered to be earlier styles, such as flanged, rolled and straight rim styles (Table 4.6).

Mount Vernon

The 317 flowerpot sherds from Mount Vernon were excavated from the Upper Garden area of George Washington's Virginia plantation (Goodwin and Breen 2005:2,3). The result of their minimum vessel count is an approximate 89 vessels based on the differences in rim and base styles unlike the Gore Place study which was conducted using only rims (Goodwin and Breen 2001:4). It is interesting to note that the Mount Vernon study produced a relatively high vessel count from their relatively low sherd count compared to Gore Place's high sherd count and relatively lower vessel count, which may relate to the difference in contexts excavated. Their investigation identified four rim types: rolled rim, double-rim, straight-rim and square-collared (Goodwin and Breen 2005:4,5). Goodwin (2005:5) says of the square-collared rim type that, "[in] the 20th century, [the] traditional straight-rim style was replaced by machine-made vessels with raised collars around the rim," though we know from the archaeology of Gore Place that this style was already being used in early 19th century greenhouses. The rim diameters of the Mount Vernon pots range from 1.96 to 16.92 inches with an average rim diameter of 6.06", though the author declares that their almost 17" pot may actually be smaller due to the difficulty of attaining an accurate measurement from a rim fragment (Goodwin and Breen 2005:12). As mentioned in chapter two, the study of the flowerpot sherds from Mount Vernon reflect about 250 years of occupation compared to the discreet period the Gore Place greenhouse was in use, yet Gore Place has more rim types and decorative types represented within the short period (Goodwin and Breen 2005:6,7).

John Page House

The excavation of the cellar of the John Page house yielded 18 plain 18th century pots of English origin (Pittman and Hunter 2002:209,211). The John Page pots look remarkably similar to the Hews pots at the Weston Historical Society though we know that they were definitely made at different potteries. The pots from the John Page cellar are of three sizes, I note the rim diameters here; 5 small (6 7/8" - 7 1/2"), 9 medium (11" - 12 1/2") , and 3 large (12 7/8" - 13 1/2") (Pittman and Hunter 2002:211). The majority of the John Page pots are larger than anything from Gore Place and all the rims are rolled and slightly flanged. It is interesting to note that the five smaller pots from the John Page collection have a single central drainage hole and the rest, except for one, have three side drainage holes evenly spaced (Pittman and Hunter 2002:211). The pots from the Gore Place collection, from what can be seen, all have a single central drainage hole.

The Gore Place planting pot collection represents a variety of planting pot sizes and forms from a unique greenhouse context given the high concentration of pot sherds contained within a discreet period of time.

Discussion

Gardens for display and for sitting in, flowers for decoration inside or outside the house, are for the rich rather than the poor... (Goody 1993:11)

So who was handling the pots found at the Gore Place greenhouse? Did Senator Gore or his wife Rebecca demonstrate an active interest in the greenhouse activities or was that completely left in the hands of Mr. Gore's gardener, Heathcot? Mrs. Gore inherited Mr. Gore's estate after his death but did she become the supervisor of the entire estate, also assuming an active role in the greenhouse if she was not already (Brockway 2001:26; Dubell 2007:59; Smith and Dubell 2006:24)? In 1879, a speech given by Marshall P. Wilder of the Massachusetts Horticultural Society honored the "early horticultural contributions or "Mrs. Governor Gore," among other New England ladies (Sinder-Brown 2009: electronic pers comm.). Mrs. Gore also had her own gardener Mr. Roderick Toohey, who was the actual recipient of the Massachusetts Horticultural Societies award of a premium for the Heathcot pear in the class of best native pear in 1830 (Gore Place Society 1981:66,82). Records at the Massachusetts Historical Society show Mrs. Gore purchasing flowers from the Cambridge Botanic Gardens, which does support her interest in flowers and possibly then in greenhouse activities as well (Vivian Sinder-Brown 2009: electronic pers comm). The record simply states that Mrs. Gore on April 2, 1822 purchased two plants in the amount of \$3.62 from the Cambridge Botanic Society (Vivian Sinder-Brown 2009: electronic pers comm.). What is not known is whether or not these plants purchased were in some sort of pot, nor where they were placed. Mr. Gore does show up in the Cambridge Boranical Societies records as a purchaser as well (Beranek 2010:personal comm). Additionally a letter addressed to Mr. Gore's friend, Rufus King, written by Mr. Gore himself on July 2, 1803, suggests that during his time abroad in England with his wife, "that his wife is studying botany...at

Saliburys... (Vivian Sinder-Brown 2009: Pers comm.). The researcher Vivian Sinder-Brown, is currently engaged in deciphering the meaning of the partial statement given the historical and cultural context of the era.

Female contemporaries of Mrs. Gore were known to supervise gardens and greenhouses (Leighton 1976:263; Beranek 2010:9). Martha Washington at Mount Vernon sent thanks to a Reverend through a letter her husband sent in 1785, for the “flower roots and seeds which she will preserve in the manner directed” indicating that she was the one who supervised or performed the plantings (Leighton 1976:262). Leighton (1976:263) subsequently states, “[the] inference is, I think, that the flower garden and the flowers were Mrs. Washington’s domain,” though this does not necessarily extend to the greenhouse. Mrs. Carroll of Mount Clare, a widow supervising her own greenhouse from which Washington ordered specifics to model his own greenhouse after, corresponded with President Washington and sent him many plants and trees in boxes and pots to help start his greenhouse (Leighton 1976:265,266).

The 19th century literature specifically encouraged women to take up gardening. Specifically A.J. Downing was particularly dedicated to the promotion of gardening to the female audience as an acceptable and desirable leisure pursuit (Leighton 1987:90). In 1843 Mrs. Loudon’s *Gardening for Ladies*, aimed at the beginner, was edited and published by A.J. Downing (Leighton 1987:91). Downing’s and Loudon’s efforts to bring gardening into the sphere of ladies activities was slow; Leighton (1987:93) states, “American ladies do seem to have been reluctant to engage in outdoor exercise beyond such social graces as strolling or a game of croquet.”

For Mrs. Gore to have had interest in the greenhouse activities does not mean that she had to have actually done the pruning or the watering etc. herself. Mrs. Gore, like some of her contemporaries may have assumed more of a supervisory role in the greenhouse, for example, “[at] Mount Clare, as in many 18th century households, the wife supervised the greenhouse activities, while the husband oversaw the design of the greenhouse and grounds,” though Mrs. Carroll took on more than just a supervisory role after her husband’s death (Wells Sarudy 2009).

Besides the use for the propagation of and housing of plants and the growing of citrus fruit, another advantage for maintaining a private greenhouse is the year-round availability of fresh cut flowers for decorating the home and the possibility to walk among plants at any season (Renaud 1990:97). As the home was most often viewed as the women’s domain, the availability of fresh cut flowers from the greenhouse anytime of the year would announced Mrs. Gore’s status to anyone visiting the home, as flowers are a means to make a statement: whether social or cultural (Goody 1993:11). Early on in the late 17th and early 18th century potted plants were placed in fireplaces for the warmer months (Woudstra 2000:196). Later on in the early part of the 19th century, plants in pots were uncommon within the home, though potted plants were used to decorate gardens and terraces (Lathrop 2000:4).

Mr. Gore’s intense interest in scientific agriculture may have lead to him having more to do with the greenhouse activities than his contemporaries, since his estate was not merely to show off his wealth but rather to make agricultural and horticultural improvements. There is documentary evidence of Mr. Gore describing his fields in

letters to his friend Rufus King, crop yields and grapery, though there is no mention at all of the greenhouse or any of the activities performed in the greenhouse (Pinkney 1969:140). It is quite clear from the archaeological record and the presence of certain planting pot forms, particularly the identification of thumb pots that this structure was meant to shelter intense horticultural activities far beyond that of the general audience.

During the period in which the Gore Place Greenhouse was in use, there was great interest in scientific or experimental agriculture among the upper classes. It was not the common farmer doing the experimenting, it was the wealthier landowners because “[e]arly nineteenth century gentlemen farmers...could afford the luxury of experimentation and failure without the specter of hunger” (Sumner 2004:103). Of these gentlemen farmers it was said that, “most of them were Federalists, and none pushed his own plow, although some like Gore ran their farms for profit” (Pinkney 1969:50). From Mr. Farwell’s Farm journal, it is clear that Mr. Gore did not push his own plow though he probably did the initial instructing on what he wanted accomplished on his farm and specified the method in which his instructions were to be carried out. This could also be said of the greenhouse activities. Mr. William Heathcot worked for Mr. Gore for 14 years, 1808-1822, until he purchased his own land near the Gore estate (Gore Place Society 1981:66). When taking into account Heathcot’s reputation as a man with an unpleasant temper, we can assume that he wouldn’t be very receptive to micromanagement or any other type of daily interference. Whether or not Mrs. Gore assumed a supervisory role in the greenhouse, it is interesting to note that it is Mr. Gore who comments on Heathcot’s ill temper (Gore Place Society 1981:66). Possibly it was

Mr. Gore who ultimately supervised the greenhouse activities in order to directly relay his instructions for horticultural experiments of which he had learned of from the various societies that he belonged to or from his travels abroad, it remains unknown.

It is known that Mr. Farrwell, Mr. Gore's farm manager, occasionally aided in the greenhouse activities by the following entries made in the Farm journal: "Helping Heathcoat about the hothouse," "Making hotbeds for Heathcoat," "Carting leaves for Heathcoat," and generally "Helping Heathcoat." Whether or not Mr. Farrwell actually assisted within the greenhouse, it is known that he sometimes performed preparatory duties such as making and tending the hotbeds or moving around supplies and in general helping Heathcot.

It appears that Mr. Heathcot would have done the majority of the intensive and time consuming daily chores associated with maintaining a greenhouse, although it is quite possible that either Mrs. or Mr. Gore could have ultimately done the supervising or instructing. Mrs. Gore's continuation of the greenhouse maintenance after Mr. Gore's death and the mention of her early horticultural contributions at a Massachusetts Horticultural Society's meeting later on in the century certainly do support her having an interest in horticulture. Likewise, Mr. Gore's interest in making agricultural improvements on his farm could have extended to the greenhouse especially since he was known to look to Britain for the latest in agricultural news, perhaps also noting horticultural trends as well. The greenhouse housed fruit trees, plants, bulb plants, flowers, and possibly pineapples, figs, and camellias, and the activities associated with

caring for them are supported archaeologically by the wide variety of planting pot sizes and styles found within the Gore Place greenhouse.

Closing Statements

An analysis of the planting pots show that the horticultural activities performed in the greenhouse were of an intense nature, that this greenhouse was not only a status marker but that the Gores subscribed to the popular ideals of the era which are reflected archaeologically in the planting pots. These ideals were rooted in agriculture and its improvement through scientific experiments to which benefit society and therefore rationalizing the landowner's wealth (Plakins Thornton 1989:174).

Beaudry et al. (1991:150) state, "artifacts are tangible incarnations of social relationships embodying the attitudes and behaviors of the past." The planting pots found within the greenhouse reflect the Gores need to uphold their place in genteel society by not only acquiring and maintaining the expected country estate but also by upholding the ideals set forth by the agricultural movement by practicing gentleman farming. These agricultural and horticultural ideals were extended to the activities within the Gore's greenhouse. The 1806 greenhouse, a status symbol in itself, was for Gore not just a means to display his wealth and reinforce his place in society but was a place in which intensive horticultural activities were performed. The presence of thumb pots, used only by propagators, indicate that this greenhouse was not just a social façade created to form the illusion of subscribing to the social paradigm but that Gore was fully vested in the ideals set forth by the societies he was associated with.

APPENDIX A: VESSEL LIST

VESSEL #	RIM TYPE	RIM DIA. (cm)	HEIGHT (cm)	BASE DIA. (cm)	BASE HOLE DIA. (cm)	DECORATION
35	Flange	21	17	13	2	Incised letters & numbers
36	Straight	15	14	11.5	2	-
37	Ruffled	10	-	-	-	Beaded, incised lines
38	Flange	20	-	-	-	Incised, wavy, figure 8
39	Rolled	30	26	21	-	Incised, wavy, figure 8
40	Rolled	22	-	-	-	Incised band of lines
41	Flange	13	11	7.5	2	Incised wavy, band of lines
42	Flange	30	-	-	-	Incised band of lines
43	Rolled	20	-	-	-	Incised band of lines
44	Square	28	-	-	-	-
45	Flange	21	-	-	-	Lead glaze spots
46	Flange	27	-	-	-	Incised, wavy
47	Rolled	27	-	-	-	-
48	Rolled	15.5	-	-	-	-
49	Double	13	-	-	-	-
50	Rolled	1.5	18	12	2.5	-
51	Flange	26	-	-	-	-
52	Flange	21	-	-	-	-
53	Rolled	21	-	-	-	Incised band of lines
54	Flange	21	-	-	-	-
55	Rolled	16	-	-	-	-
56	Square	12	-	-	-	-
57	Rolled	19	-	-	-	-
58	Square	18	-	-	-	-
59	Square	17	-	-	-	-
60	Square	17	-	-	-	-

VESSEL #	RIM TYPE	RIM DIA. (cm)	HEIGHT (cm)	BASE DIA. (cm)	BASE HOLE DIA. (cm)	DECORATION
61	Square	23	-	-	-	-
62	Square	17	-	-	-	-
63	Rolled	24	-	-	-	Incised band of lines
64	Square	18	-	-	-	-
65	Rolled	23	-	-	-	-
66	Square	19	-	-	-	-
67	Straight	4 TL	-	-	-	Incised band of lines
68	Straight	6	-	-	-	-
69	Square	9	-	-	-	-
70	Straight	10	-	-	-	-
71	Straight	9	-	-	-	-
72	Square	10	-	-	-	-
73	Straight	5	-	-	-	-
74	Square	6	-	-	-	-
75	Square	18	-	-	-	-
76	Square	15	-	-	-	-
77	Square	11 TL	-	-	-	-
78	Straight	6	-	-	-	-
79	Square	17	-	-	-	-
80	Square	14	-	-	-	-
81	Rolled	>35	-	19	-	-
82	Straight	7	-	-	-	-
83	Square	12	-	-	-	-
84	Square	12 TL	-	-	-	-
85	Square	10	-	-	-	-
86	Square	11	-	-	-	-
87	Square	11	-	-	-	-
88	Square	16	-	-	-	-
89	Square	11	-	-	-	-
90	Square	16	-	-	-	-
91	Square	8	-	-	-	-
92	Square	10	-	-	-	-
93	Square	16	-	-	-	-
94	Square	6	-	-	-	-
95	Square	7	-	-	-	-
96	Square	16	-	-	-	-
97	Square	>10	-	-	-	-
98	Square	8	-	-	-	-

VESSEL #	RIM TYPE	RIM DIA. (cm)	HEIGHT (cm)	BASE DIA. (cm)	BASE HOLE DIA. (cm)	DECORATION
99	Square	12	-	-	-	Band bottom is double
100	Square	16	-	-	-	-
101	Square	15	-	-	-	-
102	Square	16	-	-	-	-
103	Square	13	-	-	-	-
104	Square	14	-	-	-	Bottom of band has a v space
105	Square	13	-	-	-	-
106	Square	24	-	-	-	-
107	Square	7	-	-	-	-
108	Square	TL	-	-	-	-
109	Square	12	-	-	-	-
110	Square	13	-	-	-	-
111	Square	15	-	-	-	-
112	Square	16	-	-	-	-
113	Square	13	-	-	-	-
114	Square	15	-	-	-	-
115	Square	16	-	-	-	-
116	Square	14	-	-	-	-
117	Square	9	-	-	-	-
118	Square	15	-	-	-	-
119	Square	10	-	-	-	-
120	Square	14	-	-	-	-
121	Square	13	-	-	-	-
122	Square	11	-	-	-	-
123	Square	13	-	-	-	Rim has triple bottom
124	Square	10	-	-	-	-
125	Square	TL	-	-	-	-
126	Square	11	-	-	-	-
127	Square	11	-	-	-	-
128	Square	8	-	-	-	-
129	Square	24	-	-	-	-
130	Square	20	-	-	-	-
131	Square	8	-	-	-	-
132	Square	9	-	-	-	-
133	Square	7	-	-	-	-
134	Double	18	-	-	-	-
135	Double	TL	-	-	-	-

VESSEL #	RIM TYPE	RIM DIA. (cm)	HEIGHT (cm)	BASE DIA. (cm)	BASE HOLE DIA. (cm)	DECORATION
136	Straight	17	-	-	-	-
137	Rolled	13	-	-	-	-
138	Flange	14	-	-	-	-
139	Straight	13	-	-	-	-
140	Flange	12	-	-	-	-
141	Flange	15	-	-	-	Washed, checked texture
142	Rolled	11	-	-	-	-
143	Square	11	-	-	-	-
144	Rolled	11	-	-	-	-
145	Rolled	15	-	-	-	-
146	Double	18	-	-	-	-
147	Rolled	13	-	-	-	-
148	Rolled	16	-	-	-	-
149	Rolled	14	-	-	-	-
150	Rolled	15	-	-	-	-
151	Rolled	25	-	-	-	-
152	Flange	18	-	-	-	-
153	Flange	15	-	-	-	-
154	Flange	11	-	-	-	-
155	Flange	18	-	-	-	-
156	Flange	21	-	-	-	Ridge on top of rim
157	Square	14	-	-	-	-
158	Rolled	23	-	-	-	-
159	Straight	7	-	-	-	-
160	Rolled	13	-	-	-	-
161	Flange	13	-	-	-	-
162	Rolled	17 TL	-	-	-	-
163	Flange	19	-	-	-	-
164	Rolled	15	-	-	-	-
165	Straight	16	-	-	-	-
166	Straight	13	-	-	-	Carved band at rim
167	Straight	>11	-	-	-	-
168	Straight	11	-	-	-	Incised line
169	Straight	21	-	-	-	Line under band
170	Straight	21	-	-	-	-
171	Rolled	21	-	-	-	-

VESSEL #	RIM TYPE	RIM DIA. (cm)	HEIGHT (cm)	BASE DIA. (cm)	BASE HOLE DIA. (cm)	DECORATION
172	Rolled	15	-	-	-	-
173	Rolled	16	-	-	-	-
174	Rolled	20	-	-	-	-
175	Rolled	20	-	-	-	-
176	Flange	17	-	-	-	-
177	Straight	15	-	-	-	-
178	Straight	11	-	-	-	-
179	Flange	21	-	-	-	-
180	Straight	12	-	-	-	-
181	Square	15	-	-	-	-
182	Square	7	-	-	-	-
183	Rolled	30	7.5	-	-	Incised, wavy, figure 8
184	Square	14	-	-	-	Band bottom is double

TL= Too little of the rim fragment exists to get a good measurement.

APPENDIX B: BASE CHART

BASE #	VESSEL #	BASE DIA. (cm)	BASE HOLE DIA. (cm)
1	46	15	-
2	-	10	1.5
3	-	12	-
4	-	10.5	1.75
5	-	-	1.5
6	-	11	1.75
7	-	9	-
8	35	13	2
9	-	12.5	2
10	50	12	2.5
11	-	14	2
12	-	16	2.75
13	-	5.5	1.25
14	39	21	-
15	-	18	-
16	81	19	-
17	36	11.5	2
18	-	11	-
19	-	10.5	1.5
20	-	-	3
21	21	13.5	2.5
22	41	7.5	2
23	-	13	-
24	-	7	1.75
25	-	>10	2
26	-	>14	2
27	-	>7	2
28	-	>9	2
29	-	5	1
30	-	>5	1.5
31	-	4	1
32	-	4	1 TL
33	-	5	1
34	-	<5	1
35	-	10	-
36	-	6	-
37	-	9	-

BASE #	VESSEL #	BASE DIA. (cm)	BASE HOLE DIA. (cm)
38	-	>7.5	1.5
39	-	14	-
40	-	11	-
41	-	12	-
42	-	-	3
43	-	-	4
44	-	5	-
45	-	7.5	1 TL
46	-	7	-
47	-	10	-
48	-	10	-
49	-	11	-
50	-	13	-
51	-	14	-
52	-	>8	1.75
53	-	9	-
54	-	14	-
55	-	10	-
56	-	10	-
57	-	5	-
58	-	5	-
59	-	-	.5

TL=Too little of base fragment to get a good measurement.

APPENDIX C: CONTEXT INFORMATION

VES #	CONTEXT
35	637
36	637
37	629,695,627
38	637
39	637
40	637
41	620,659
42	637
43	666
44	616
45	777
46	637
47	676,637,689.1
48	676,651
49	674,628
50	718
51	777,718
52	637
53	643
54	676,637
55	628
56	691
57	676
58	618,620
59	627
60	624
61	691
62	620
63	621
64	620,674
65	678
66	614,620
67	665
68	623
69	637,625
70	669,633
71	669,633
72	633,669,688

VES #	CONTEXT
73	633,669
74	614
75	625
76	712
77	637
78	639
79	651
80	620
81	637
82	627
83	727
84	634
85	637
86	669
87	712
88	637
89	620
90	620
91	665
92	651
93	620
94	688
95	674
96	620
97	614
98	609
99	665,620
100	712
101	623
102	612
103	620,637
104	620
105	714
106	631
107	620
108	688
109	712
110	625

VES #	CONTEXT
111	620
112	669
113	614
114	633
115	637
116	712
117	620
118	669
119	712
120	712
121	618
122	620
123	620
124	669
125	712
126	620
127	666
128	712
129	651
130	732
131	651
132	620
133	712
134	712
135	625
136	630
137	646
138	645
139	637
140	691
141	647
142	658
143	658
144	718,777
145	656
146	669
147	640
148	676

VES #	CONTEXT
149	740
150	651
151	637
152	658
153	689
154	628
155	629
156	651
157	633
158	718
159	691
160	727
161	632
162	646
163	651
164	651
165	669
166	669
167	669
168	627
169	681
170	624
171	731,739
172	616,608
173	605
174	669
175	631
176	711
177	625
178	605
179	632
180	676
181	626
182	623
183	637
184	691

APPENDIX D: CONTEXT ASSOCIATIONS

CONTEXT #	ASSOCIATION
605	Level 1
608	Level 1
609	Level 1
612	Level 2
614	Level 2
616	-
618	Level 2
620	Rubble deposit
621	Level 2
623	Level 2
624	Level 2
625	Level 2
626	-
627	Level 2
628	Old ground surface
629	-
630	-
631	F8, F9
632	F2
633	Stony fill
634	Fill
637	F2
639	Level 2
640	F8, F9
643	-
645	-
646	Old ground surface
647	-
651	Stony fill
656	-
658	So. GH extension
659	Rubble deposit
665	Rubble deposit
666	F2
669	F2
674	-
676	Stony fill
678	-

CONTEXT #	ASSOCIATION
681	So. Of GH ext.
688	-
689	F2
689.1	-
691	-
695	-
711	-
712	Rubble deposit
714	Rubble deposit
718	F21, F24
727	Old ground surface
731	-
732	Rubble deposit
739	Rubble deposit
740	-
777	-

APPENDIX E: CONTEXT DESCRIPTIONS

LEVEL 1	Modern layer, spans entire site.
LEVEL 2	Slightly older layer with 20 th century deposits as well.
OLD GROUND SURFACE	Outside of greenhouse.
F8 AND F9	Southern French drain fill deposits.
F2	The French drain context.
STONY FILL	Stony fill that is on the western side of the site and is cut into by the French drain.
SOUTH OF GREENHOUSE EXTENSION	Fill layers to the south of the greenhouse extension.
RUBBLE DEPOSIT	Interior greenhouse rubble deposit, this is from a destruction layer.
NORTH OF FRENCH DRAIN	-
F21	A post mold within F24 which is a post hole.

Context information derived from personal communication with Christa Beranek, 2010.

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